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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health National Institute of Environmental Health Sciences P. O. Box 12233 Research Triangle Park, NC 27709

August 22, 2003

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Ofc. Of Pollution Prevention & Toxics

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Dear Document Control Office (7407):

In compliance with the National Toxicology Program's (NTP) mission to keep our colleagues informed of the current NTP findings during ongoing studies, a copy of the Pathology Working Group (PWG) report and the Summary Pathology Tables for the chronic Water study on WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) (7775-09-9) are enclosed for your review.

The NTP assembles a Pathology Working Group to review every study and to resolve any differences between the study laboratory and quality assessment pathology evaluations. Please note that the PWG conclusion of the study results is based solely on the pathology for this study and may not reflect final NTP conclusions. In determining final conclusions, the NTP assesses a broad array of information that includes other results from this study and historical control data.

The Summary Pathology Tables contain the Incidence Rates of Neoplastic and Non-neoplastic Lesion data and the Statistical Analysis of Primary Tumors data pertaining to the laboratory animals. All study data are subject to an NTP retrospective audit and the interpretation may be modified based on the findings.

A wide variety of NTP information is also available in electronic format on the world-wide web, for example, the NTP Annual Plan, abstracts of NTP Reports, study data, and the status of all NTP studies. To view this information requires access to the internet and a Web browser such as Netscape Navigator or Internet Explorer. To access the NTP home page, use the URL http://ntp-server.niehs.nih.gov/. Comments on the usefulness of this site and suggestions for improvement are encouraged.

Please contact Central Data Management (CDM) at (919)541-3419 if you have any questions. You may also fax your requests for information to CDM at (919)541-3687 or send them via e-mail to cdm@niehs.nih.gov.



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Hard copies of documents such as NTP Technical Reports, short-term Toxicity Reports, and the Report on Carcinogens are available from the Environmental Health Information Service (EHIS). You can contact EHIS by phone at (919) 541-3841, by fax at (919)541-0273, or by e-mail at ehis@niehs.nih.gov.

Sincerely,

William Eastin, Ph.D.

Head, Information Systems & Central Files

Environmental Toxicology Program

William Easten

Encls: PWG Report and Pathology Summary Tables for Rats and Mice

cc: Central Data Management

TR-517 - Water Disinfection Byproducts (Sodium Chlorate)

Pathology Tables - Rats

- * P03 Incidence Rates of Non-Neoplastic Lesions
- P05 Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- * P08 Statistical Analysis of Primary Tumors
- * P18 Incidence Rates of Non-Neoplastic Lesions

Pathology Tables - Mice

- P03 Incidence Rates of Non-Neoplastic Lesions
- P05 Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)
- P08 Statistical Analysis of Primary Tumors
- P18 Incidence Rates of Non-Neoplastic Lesions

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NTP Experiment-Test: 96010-03

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)

Study Type: CHRONIC Route: DOSED WATER

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FINAL#1/RATS

Facility: Southern Research Institute

Chemical CAS #: 7775-09-9

Lock Date: 10/16/01

Cage Range: All

Reasons For Removal: A11 Removal Date Range: A11

Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

1000MG/L 2000MG/L 0 MG/L 125 MG/L FISCHER 344 RATS FEMALE DISPOSITION SUMMARY 50 50 50 50 Animals Initially In Study Early Deaths 6 5 3 Natural Death 4 11 10 11 Moribund Sacrifice Survivors 32 40 37 34 Terminal Sacrifice 1 1 Natural Death 2 Moribund Sacrifice 50 50 50 50 Animals Examined Microscopically ALIMENTARY SYSTEM (45)(49)(50)(49)Intestine Small, Duodenum 1 (2%) Amyloid Deposition 1 (2%) Epithelium, Cyst (50)(50) (50) (50) Liver 2 (4%) Angiectasis, Focal 42 (84%) 42 (84%) 44 (88%) 41 (82%) Basophilic Focus 1 (2%) 3 (6%) 1 (2%) Cholangiofibrosis 16 (32%) 18 (36%) 10 (20%) 6 (12%) Clear Cell Focus 1 (2%) 2 (4%) 6 (12%) 2 (4%) Congestion 3 (6%) 1 (2%) 1 (2%) Degeneration, Cystic, Focal 1 (2%) 1 (2%) 2 (4%) Eosinophilic Focus 1 (2%) Fibrosis, Focal 1 (2%) Hemorrhage 7 (14%) 4 (8%) 8 (16%) 3 (6%) Hepatodiaphragmatic Nodule 16 (32%) 23 (46%) 20 (40%) 19 (38%) Hyperplasia, Focal, Histiocytic 1 (2%) 1 (2%) Hyperplasia, Focal, Regenerative 2 (4%) Hyperplasia, Regenerative 1 (2%) Infarct, Multiple Infiltration Cellular, Focal, 1 (2%) Polymorphonuclear 1 (2%) Infiltration Cellular, Polymorphonuclear 38 (76%) 35 (70%) 41 (82%) 39 (78%) Infiltration Cellular, Mixed Cell 6 (12%) 7 (14%) 8 (16%) 12 (24%) Mixed Cell Focus 1 (2%) Thrombosis 1 (2%) Bile Duct, Cyst 26 (52%) 29 (58%) 24 (48%) 34 (68%) Bile Duct, Hyperplasia 1 (2%) Capsule, Cyst 1 (2%) Hepatocyte, Karyomegaly

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FISCHER 344 RATS FEMALE 0 MG/L 125 MG/L 1000MG/L 2000MG/L ALIMENTARY SYSTEM - CONT Hepatocyte, Necrosis, Focal 2 (4%) 1 (2%) Hepatocyte, Vacuolization Cytoplasmic 2 (4%) Hepatocyte, Vacuolization Cytoplasmic, Diffuse 1 (2%) 2 (4%) 1 (2%) 2 (4%) Hepatocyte, Vacuolization Cytoplasmic, Focal 17 (34%) 10 (20%) 10 (20%) 10 (20%) Hepatocyte, Periportal, Vacuolization Cytoplasmic 2 (4%) Hepatocyte, Periportal, Centrilobular, Vacuolization Cytoplasmic 1 (2%) Hepatocyte, Centrilobular, Necrosis 2 (4%) 1 (2%) 1 (2%) 2 (4%) Hepatocyte, Centrilobular, Vacuolization Cytoplasmic 5 (10%) 3 (6%) 8 (16%) 3 (6%) Hepatocyte, Midzonal, Vacuolization Cytoplasmic 2 (4%) Mesentery (18)(10)(13)(16)Inflammation, Chronic, Focal 1 (10%) Fat, Necrosis 4 (22%) 2 (20%) 1 (8%) Fat, Necrosis, Focal 5 (50%) 12 (67%) 9 (69%) 13 (81%) Pancreas (50) (49)(49)(49) Lipomatosis 1 (2%) Acinus, Atrophy, Diffuse 1 (2%) Acinus, Atrophy, Focal 15 (30%) 8 (16%) 9 (18%) 16 (33%) Duct, Cyst, Focal 2 (4%) 1 (2%) 4 (8%) 1 (2%) Duct, Cyst, Focal, Multiple 10 (20%) 14 (29%) 11 (22%) 18 (37%) Duct, Hyperplasia, Focal 1 (2%) Salivary Glands (50) (50)(50) (50) Atrophy, Focal 2 (4%) Stomach, Forestomach (50)(50)(50) (50)Edema 1 (2%) 1 (2%) 1 (2%) Erosion 1 (2%) Inflammation, Chronic 2 (4%) 1 (2%) Inflammation, Chronic, Focal 1 (2%) Perforation 1 (2%) Ulcer 2 (4%) 7 (14%) 1 (2%) Epithelium, Hyperplasia 2 (4%) 4 (8%) 6 (12%) 1 (2%) Stomach, Glandular (50) (49)(49)(50)Erosion 2 (4%) 2 (4%) 2 (4%) Erosion, Focal 1 (2%) Inflammation, Chronic 1 (2%) Necrosis, Focal 1 (2%) Pigmentation, Focal 1 (2%) Ulcer 1 (2%) Tooth (2) (2) (1)

a Number of animals examined microscopically at site and number of animals with lesion

Pars Distalis, Angiectasis

Pars Distalis, Cyst

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

1000MG/L 2000MG/L 0 MG/L 125 MG/L FISCHER 344 RATS FEMALE ALIMENTARY SYSTEM - CONT 1 (50%) Malformation 1 (50%) Dentine, Malformation Peridontal Tissue, Inflammation, Chronic 1 (50%) 2 (100%) Peridontal Tissue, Inflammation, Chronic, 1 (100%) Focal CARDIOVASCULAR SYSTEM (1) (1) Blood Vessel 1 (100%) Thrombosis (50)(50) (50)(50) Heart 2 (4%) 4 (8%) 2 (4%) Cardiomyopathy 4 (8%) 1 (2%) 1 (2%) Infiltration Cellular, Mixed Cell 1 (2%) Thrombosis ENDOCRINE SYSTEM (50)(50) (50)(50) Adrenal Cortex 2 (4%) Accessory Adrenal Cortical Nodule 2 (4%) 3 (6%) 5 (10%) 2 (4%) 1 (2%) 1 (2%) 2 (4%) Angiectasis 2 (4%) 3 (6%) 2 (4%) Cytoplasmic Alteration, Focal 1 (2%) 1 (2%) 1 (2%) Degeneration, Cystic, Focal 1 (2%) Fibrosis, Focal 1 (2%) Hematopoietic Cell Proliferation 1 (2%) 1 (2%) 2 (4%) Hemorrhage 1 (2%) Infiltration Cellular, Mixed Cell 1 (2%) Necrosis, Focal 7 (14%) 8 (16%) 7 (14%) 13 (26%) Vacuolization Cytoplasmic, Focal (50) (50)(50) (50) Adrenal Medulla 1 (2%) Angiectasis 1 (2%) 1 (2%) 3 (6%) 4 (8%) Hyperplasia, Focal 1 (2%) Infiltration Cellular, Focal, Lymphoid (50) (49)(49)(50) Islets, Pancreatic 1 (2%) Hyperplasia, Focal (48) (47)(47)(47)Parathyroid Gland 1 (2%) Hyperplasia, Focal (50)(50) (49)(49)Pituitary Gland 10 (20%) 6 (12%) 2 (4%) 13 (26%) Angiectasis 1 (2%) Pigmentation, Focal

2 (4%)

2 (4%)

2 (4%)

1 (2%)

2 (4%)

1 (2%)

2 (4%)

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FISCHER 344 RATS FEMALE 0 MG/L 125 MG/L 1000MG/L 2000MG/L ENDOCRINE SYSTEM - CONT Pars Distalis, Cytoplasmic Alteration, Focal 3 (6%) 1 (2%) 2 (4%) 3 (6%) Pars Distalis, Degeneration, Cystic, Focal 11 (22%) 14 (29%) 11 (22%) 3 (6%) Pars Distalis, Hemorrhage, Focal 9 (18%) 6 (12%) 10 (20%) 2 (4%) Pars Distalis, Hyperplasia, Focal 7 (14%) 5 (10%) 10 (20%) 4 (8%) Pars Distalis, Infiltration Cellular, Focal 1 (2%) Pars Nervosa, Hyperplasia, Atypical, Focal 1 (2%) Rathke's Cleft, Cyst 1 (2%) 2 (4%) Rathke's Cleft, Hemorrhage 1 (2%) 2 (4%) 2 (4%) 6 (12%) Rathke's Cleft, Hyperplasia, Cystic 1 (2%) Thyroid Gland (47)(47)(43)(46)Congestion 1 (2%) Ultimobranchial Cyst 1 (2%) 1 (2%) C-Cell, Hyperplasia 43 (91%) 45 (96%) 43 (100%) 44 (96%) Follicle, Mineralization, Focal 25 (53%) 26 (55%) 40 (93%) 44 (96%) Follicular Cell, Hyperplasia, Cystic, Focal 1 (2%) Follicular Cell, Hypertrophy 3 (6%) 7 (15%) 27 (63%) 42 (91%) GENERAL BODY SYSTEM Tissue NOS (1)(2) (4)(6) Mediastinum, Cyst 1 (25%) Mediastinum, Thrombosis 1 (17%) Oral, Foreign Body, Focal 1 (17%) Oral, Necrosis, Focal 1 (17%) GENITAL SYSTEM Clitoral Gland (49)(50) (50)(49)Cyst 1 (2%) Degeneration, Cystic 5 (10%) 2 (4%) 6 (12%) 1 (2%) Hyperplasia 1 (2%) Hyperplasia, Cystic 1 (2%) 4 (8%) 3 (6%) 1 (2%) Hyperplasia, Cystic, Focal 1 (2%) Inflammation, Chronic 6 (12%) 2 (4%) 3 (6%) 1 (2%) Duct, Inflammation, Chronic 1 (2%) Ovary (50)(50) (49)(50) Cyst 5 (10%) 1 (2%) 1 (2%) 4 (8%) Corpus Luteum, Hyperplasia 1 (2%) Interstitial Cell, Hyperplasia 1 (2%) 1 (2%) Periovarian Tissue, Cyst 4 (8%) 4 (8%) 2 (4%) 1 (2%) Uterus (50) (50) (49)(50)

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

0 MG/L 125 MG/L 1000MG/L 2000MG/L FISCHER 344 RATS FEMALE GENITAL SYSTEM - CONT 1 (2%) 1 (2%) Hemorrhage 1 (2%) Hydrometra 1 (2%) Inflammation, Chronic 1 (2%) Inflammation, Focal, Suppurative 1 (2%) 1 (2%) Inflammation, Suppurative 1 (2%) Ulcer, Chronic Active Endometrium, Hyperplasia, Cystic 16 (32%) 7 (14%) 16 (33%) 11 (22%) (3) (1) (6) (3) Vagina 1 (100%) 2 (33%) 1 (33%) 1 (33%) Cvst 1 (17%) Inflammation, Chronic Inflammation, Suppurative 1 (33%) 1 (33%) HEMATOPOIETIC SYSTEM (50)(50)(50) (49)Bone Marrow 1 (2%) Angiectasis 1 (2%) Hemorrhage 1 (2%) 1 (2%) Hyperplasia 2 (4%) 2 (4%) Hyperplasia, Focal, Histiocytic 2 (4%) 7 (14%) 3 (6%) 2 (4%) 6 (12%) Myeloid Cell, Hyperplasia 3 (6%) Myeloid Cell, Erythroid Cell, Hyperplasia 2 (4%) 2 (4%) (34)(30) (39)(36) Lymph Node Hyperplasia, Plasma Cell 1 (3%) 1 (3%) Pigmentation Deep Cervical, Hemorrhage 1 (3%) Deep Cervical, Hyperplasia, Lymphoid 1 (3%) 1 (3%) Deep Cervical, Hyperplasia, Plasma Cell 1 (3%) Mediastinal, Angiectasis 1 (3%) Mediastinal, Congestion 2 (7%) 4 (10%) 2 (6%) 4 (12%) Mediastinal, Ectasia 6 (18%) 5 (17%) 3 (8%) Mediastinal, Hemorrhage 6 (17%) 4 (12%) 2 (7%) 3 (8%) Mediastinal, Hyperplasia, Histiocytic 1 (3%) Mediastinal, Hyperplasia, Lymphoid 1 (3%) 2 (6%) 2 (7%) 3 (8%) 1 (3%) Mediastinal, Hyperplasia, Plasma Cell Mediastinal, Infiltration Cellular, Mixed 1 (3%) Cell 1 (3%) Mediastinal, Pigmentation 1 (3%) Pancreatic, Angiectasis 1 (3%) 1 (3%) Pancreatic, Ectasia 5 (14%) 3 (9%) 5 (13%) Pancreatic, Hemorrhage 15 (50%) 25 (64%) Pancreatic, Hyperplasia, Histiocytic 31 (86%) 22 (65%) 1 (3%) Pancreatic, Hyperplasia, Lymphoid

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000 MG /L
EMATOPOIETIC SYSTEM - CONT				
Pancreatic, Pigmentation	1 (3%)	7 (21%)	3 (10%)	6 /1591
Lymph Node, Mandibular	(4)	(6)	(4)	6 (15%)
Ectasia	(4)	1 (17%)	147	(5)
Lymph Node, Mesenteric	(50)	(49)	(49)	(50)
Hemorrhage	(50)	(43)	(49)	
Hyperplasia, Focal, Histiocytic			1 (2%)	1 (2%)
Hyperplasia, Histiocytic	2 (4%)	4 (8%)	1 (20)	4 (09)
Hyperplasia, Lymphoid	1 (2%)	4 (00)		4 (8%)
Spleen	(50)	(50)	(50)	(50)
Angiectasis, Focal	(30)	1 (2%)	(30)	1 (2%)
Fibrosis, Focal		1 (2%)		1 (2%)
Hematopoietic Cell Proliferation	16 (32%)	21 (42%)	8 (16%)	17 (34%)
Hemorrhage	1 (2%)	1 (2%)	1 (2%)	2 (4%)
Hyperplasia, Focal, Histiocytic	2 (4%)	4 (8%)	2 (4%)	5 (10%)
Infarct	, , , ,	- (55)	2 (10)	1 (2%)
Pigmentation, Focal			1 (2%)	1 (20)
Red Pulp, Fibrosis, Diffuse			_ (55)	1 (2%)
Thymus	(49)	(48)	(48)	(48)
Angiectasis	2 (4%)	1 (2%)	, ,	(10)
Cyst		1 (2%)		
Hemorrhage	1 (2%)		2 (4%)	1 (2%)
Hyperplasia, Lymphoid	1 (2%)			1 (2%)
INTEGUMENTARY SYSTEM				
Mammary Gland	(50)	(50)	(50)	(50)
Dilatation	37 (74%)	39 (78%)	34 (68%)	38 (76%)
Ectasia	4 (8%)	1 (2%)	3 (6%)	2 (4%)
Fibrosis	2 (4%)	1 (2%)	1 (2%)	4 (8%)
Fibrosis, Focal	1 (2%)			
Hyperplasia	7 (14%)	11 (22%)	10 (20%)	9 (18%)
Hyperplasia, Focal	1 (2%)			1 (2%)
Inflammation, Chronic				1 (2%)
Skin	(50)	(50)	(50)	(50)
Inflammation, Chronic, Focal		1 (2%)		
Ulcer				1 (2%)
Subcutaneous Tissue, Fibrosis, Focal	1 (2%)			

MUSCULOSKELETAL SYSTEM

None

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

2000MG/L FISCHER 344 RATS FEMALE 0 MG/L 125 MG/L 1000MG/L NERVOUS SYSTEM (49)(50)(50)(50) Brain 9 (18%) 9 (18%) 9 (18%) 10 (20%) Compression, Focal 2 (4%) Hemorrhage, Focal 4 (8%) 3 (6%) Necrosis, Focal 1 (2%) Thalamus, Mineralization, Focal 1 (2%) 1 (2%) Thalamus, Necrosis, Focal RESPIRATORY SYSTEM (50)(50) (50) (50) Lung 1 (2%) 2 (4%) Congestion 1 (2%) 2 (4%) Hemorrhage, Focal 1 (2%) 2 (4%) 1 (2%) 1 (2%) Hyperplasia, Focal, Histiocytic 2 (4%) Hyperplasia, Histiocytic 4 (8%) 6 (12%) 5 (10%) Infiltration Cellular, Polymorphonuclear Infiltration Cellular, Mixed Cell 1 (2%) 2 (4%) 3 (6%) 2 (4%) 1 (2%) 4 (8%) 2 (4%) Inflammation, Chronic, Focal 2 (4%) 1 (2%) Metaplasia, Focal, Osseous Alveolar Epithelium, Hyperplasia 1 (2%) 2 (4%) 4 (8%) 2 (4%) 3 (6%) Alveolar Epithelium, Hyperplasia, Focal 1 (2%) Interstitium, Edema 1 (2%) Mediastinum, Edema 1 (2%) Peribronchiolar, Hyperplasia, Lymphoid (50) (50) (50) (50)Nose Inflammation, Suppurative Nasolacrimal Duct, Inflammation 1 (2%) 2 (4%) 1 (2%) 1 (2%) Respiratory Epithelium, Metaplasia, Focal, 1 (2%) Squamous SPECIAL SENSES SYSTEM (49)(47)(50) (50)Eye 1 (2%) Atrophy 1 (2%) 2 (4%) 2 (4%) 3 (6%) Cataract 1 (2%) Hemorrhage Retinal Detachment 1 (2%) 1 (2%) Bilateral, Atrophy 1 (2%) Cornea, Inflammation, Chronic 1 (2%) 1 (2%) Cornea, Necrosis, Focal

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
PECIAL SENSES SYSTEM - CONT					
Retina, Degeneration	1 (2%)	2 (4%)	1 (2%)	2 (4%)	
Harderian Gland	(50)	(50)	(50)	(50)	
Hyperplasia, Cystic, Focal	1 (2%)	(55)	(30)	(30)	
Hyperplasia, Focal				1 (2%)	
Hyperplasia, Focal, Histiocytic	2 (4%)		1 (2%)		
Inflammation, Chronic, Focal		1 (2%)	1 (2%)	2 (4%)	
Metaplasia, Focal, Squamous			1 (2%)		
Epithelium, Hyperplasia, Focal	1 (2%)				
Kidney Atrophy, Diffuse	(50)	(49) 1 (2%)	(47)	(47)	
	1 (20)	1 (20)			
Atrophy, Focal	1 (2%)	1 (20)	1 /00.1	2 (4%)	
Atrophy, Focal Cyst	1 (2%)	1 (20)	1 (2%)	2 (4%) 1 (2%)	
Atrophy, Focal Cyst Hyperplasia, Lymphoid Infarct	1 (2%)	,	1 (2%)		
Atrophy, Focal Cyst Hyperplasia, Lymphoid Infarct Infiltration Cellular, Polymorphonuclear	1 (2%)	1 (2%)			
Atrophy, Focal Cyst Hyperplasia, Lymphoid Infarct Infiltration Cellular, Polymorphonuclear Inflammation, Chronic	1 (2%)	,	1 (2%)		
Atrophy, Focal Cyst Hyperplasia, Lymphoid Infarct Infiltration Cellular, Polymorphonuclear Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous	1 (2%)	1 (2%) 1 (2%)	1 (2%)		
Atrophy, Focal Cyst Hyperplasia, Lymphoid Infarct Infiltration Cellular, Polymorphonuclear Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous Nephropathy	. ,	1 (2%) 1 (2%) 2 (4%) 41 (84%)	1 (2%)	1 (2%)	
Atrophy, Focal Cyst Hyperplasia, Lymphoid Infarct Infiltration Cellular, Polymorphonuclear Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous Nephropathy Pelvis, Inflammation, Chronic	1 (2%) 43 (86%)	1 (2%) 1 (2%) 2 (4%) 41 (84%) 1 (2%)	1 (2%) 1 (2%)	1 (2%) 1 (2%)	
Atrophy, Focal Cyst Hyperplasia, Lymphoid Infarct Infiltration Cellular, Polymorphonuclear Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous Nephropathy Pelvis, Inflammation, Chronic Pelvis, Transitional Epithelium, Hyperplasia	1 (2%) 43 (86%)	1 (2%) 1 (2%) 2 (4%) 41 (84%) 1 (2%) 1 (2%)	1 (2%) 1 (2%) 37 (79%)	1 (2%) 1 (2%) 38 (81%)	
Atrophy, Focal Cyst Hyperplasia, Lymphoid Infarct Infiltration Cellular, Polymorphonuclear Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous Nephropathy Pelvis, Inflammation, Chronic	1 (2%) 43 (86%)	1 (2%) 1 (2%) 2 (4%) 41 (84%) 1 (2%)	1 (2%) 1 (2%)	1 (2%) 1 (2%)	

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

0 MG/L 125 MG/L 1000MG/L 2000MG/L FISCHER 344 RATS MALE DISPOSITION SUMMARY 50 Animals Initially In Study 50 50 50 Early Deaths 10 13 11 14 Moribund Sacrifice 3 10 8 8 Natural Death Accidently Killed 1 Survivors 36 2.7 31 28 Terminal Sacrifice 50 50 50 50 Animals Examined Microscopically ALIMENTARY SYSTEM (49)(48)(47)(44)Intestine Large, Colon 2 (4%) Edema (48)(47) (47)(50)Intestine Large, Rectum Congestion 1 (2%) 1 (2%) Edema 1 (2%) Hemorrhage (47)(46)(43)(47)Intestine Large, Cecum 1 (2%) Edema 1 (2%) 1 (2%) Ulcer (49)(46)(46)(47)Intestine Small, Duodenum 1 (2%) Ulcer Epithelium, Hyperplasia 1 (2%) (42)Intestine Small, Jejunum (47)(46)(44)1 (2%) Epithelium, Necrosis (47)(46)(42)(47)Intestine Small, Ileum 1 (2%) Ulcer (50) (50) (48)Liver (50) 1 (2%) 1 (2%) 3 (6%) Angiectasis, Focal 2 (4%) 33 (69%) 27 (54%) 30 (60%) 29 (58%) Basophilic Focus 2 (4%) 1 (2%) 1 (2%) 1 (2%) Cholangiofibrosis 18 (36%) 29 (60%) 15 (30%) Clear Cell Focus 21 (42%) 2 (4%) Congestion 9 (18%) 14 (28%) Degeneration, Cystic, Focal 13 (26%) 12 (25%) 2 (4%) Eosinophilic Focus 2 (4%) 3 (6%) 1 (2%) 1 (2%) Fibrosis, Focal 1 (2%) Hemorrhage, Focal Hepatodiaphragmatic Nodule 6 (12%) 2 (4%) 3 (6%) 5 (10%) Hyperplasia, Focal, Histiocytic 2 (4%) 8 (17%) 5 (10%) 6 (12%)

Hyperplasia, Focal, Lymphoid

1 (2%)

1 (2%)

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FISCHER 344 RATS MALE 0 MG/L 125 MG/L 1000MG/L 2000MG/L ALIMENTARY SYSTEM - CONT Infarct 1 (2%) Infiltration Cellular, Mixed Cell 36 (72%) 29 (58%) 33 (69%) 28 (56%) Mixed Cell Focus 13 (26%) 11 (22%) 3 (6%) 8 (16%) Bile Duct, Hyperplasia 48 (96%) 49 (98%) 46 (96%) 50 (100%) Centrilobular, Congestion 1 (2%) Hepatocyte, Necrosis, Focal 1 (2%) 2 (4%) Hepatocyte, Vacuolization Cytoplasmic, Diffuse 3 (6%) 3 (6%) 4 (8%) Hepatocyte, Vacuolization Cytoplasmic, Focal 26 (52%) 15 (30%) 14 (29%) 18 (36%) Hepatocyte, Periportal, Necrosis 1 (2%) Hepatocyte, Periportal, Vacuolization Cytoplasmic 1 (2%) 1 (2%) Hepatocyte, Centrilobular, Atrophy 1 (2%) Hepatocyte, Centrilobular, Necrosis 1 (2%) 3 (6%) 6 (13%) 4 (8%) Hepatocyte, Centrilobular, Vacuolization Cytoplasmic 4 (8%) 9 (18%) 12 (25%) 11 (22%) Hepatocyte, Midzonal, Necrosis 1 (2%) Hepatocyte, Midzonal, Vacuolization Cytoplasmic 6 (12%) 1 (2%) 1 (2%) Hepatocyte, Midzonal, Vacuolization Cytoplasmic, Focal 1 (2%) Portal, Fibrosis 1 (2%) Portal, Hemorrhage 1 (2%) Mesenterv (19)(20)(19)(23)Angiectasis 1 (5%) Hemorrhage 1 (5%) 1 (5%) Inflammation, Chronic 1 (5%) Inflammation, Chronic, Focal 1 (4%) Fat, Necrosis 2 (11%) 2 (11%) 2 (9%) Fat, Necrosis, Focal 12 (63%) 10 (50%) 13 (68%) 14 (61%) Pancreas (49)(49)(49)(50) Inflammation, Chronic 1 (2%) Acinus, Atrophy, Diffuse 1 (2%) Acinus, Atrophy, Focal 23 (47%) 23 (47%) 27 (55%) 15 (30%) Acinus, Hyperplasia, Focal 1 (2%) 1 (2%) Duct, Cyst, Focal 1 (2%) 1 (2%) Duct, Cyst, Focal, Multiple 15 (31%) 13 (27%) 18 (37%) 15 (30%) Salivary Glands (49)(50) (50)(50) Atrophy 1 (2%) Hyperplasia, Focal, Histiocytic 1 (2%) Stomach, Forestomach (50)(50)(50) (50) Edema 1 (2%) 1 (2%) 4 (8%) Erosion 1 (2%)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 96010-03 Study Type: CHRONIC Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
ALIMENTARY SYSTEM - CONT Inflammation, Chronic Inflammation, Chronic, Focal Inflammation, Focal Ulcer Epithelium, Cyst Epithelium, Hyperplasia Epithelium, Hyperplasia, Focal Stomach, Glandular Erosion Perforation Pigmentation, Focal Ulcer Epithelium, Hyperplasia, Focal Tongue Epithelium, Hyperplasia, Focal Tongue Epithelium, Hyperplasia Tooth Malformation Peridontal Tissue, Hyperplasia, Squamous	1 (2%) 1 (2%) 2 (4%) (49) 3 (6%) 1 (2%) (1) 1 (100%)	4 (8%) 1 (2%) 5 (10%) 8 (16%) (48) 2 (4%) 1 (2%) (1) (1) 1 (100%)	1 (2%) 1 (2%) 2 (4%) 1 (2%) 1 (2%) (48) 4 (8%) 1 (2%) (1) (1) 1 (100%)	1 (2%) 4 (8%) 7 (14%) (50) 4 (8%) 1 (2%) 3 (6%) (1)
CARDIOVASCULAR SYSTEM Heart Cardiomyopathy Infiltration Cellular, Mixed Cell Inflammation, Chronic, Focal Thrombosis Artery, Inflammation, Chronic, Focal Endocardium, Valve, Inflammation, Chronic, Focal	(50) 6 (12%) 2 (4%) 1 (2%) 1 (2%) 1 (2%)	(50) 3 (6%) 1 (2%) 1 (2%)	(50) 7 (14%) 2 (4%)	(50) 10 (20%) 2 (4%) 1 (2%) 2 (4%)
ENDOCRINE SYSTEM Adrenal Cortex Accessory Adrenal Cortical Nodule Atrophy Cytoplasmic Alteration, Focal Degeneration, Cystic, Focal Hyperplasia, Diffuse Infiltration Cellular, Mixed Cell Necrosis, Focal Vacuolization Cytoplasmic, Diffuse	(49) 1 (2%) 3 (6%)	(49) 7 (14%) 3 (6%) 1 (2%)	(50) 4 (8%) 1 (2%) 2 (4%) 2 (4%) 1 (2%)	(50) 3 (6%) 4 (8%) 1 (2%)

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
ENDOCRINE SYSTEM - CONT			-		
Vacuolization Cytoplasmic, Focal	12 (24%)	8 (16%)	7 (14%)	6 (12%)	
Capsule, Fibrosis, Focal	12 (210)	1 (2%)	, (140)	0 (128)	
Adrenal Medulla	(49)	(49)	(50)	(50)	
Hyperplasia, Focal	5 (10%)	12 (24%)	9 (18%)	13 (26%)	
Islets, Pancreatic	(50)	(49)	(49)	(50)	
Hyperplasia	(30)	2 (4%)	(4))	(30)	
Hyperplasia, Focal	1 (2%)	1 (2%)			
Parathyroid Gland	(49)	(50)	(47)	(49)	
Hyperplasia, Focal	(/	(50)	(4/)	1 (2%)	
Pituitary Gland	(48)	(50)	(49)	(50)	
Angiectasis	2 (4%)	4 (8%)	1 (2%)	3 (6%)	
Hemorrhage	_ (/	1 (2%)	1 (20)	5 (00)	
Hemorrhage, Focal		_ (1 (2%)	
Pars Distalis, Cyst	2 (4%)	1 (2%)	1 (2%)	1 (2%)	
Pars Distalis, Cytoplasmic Alteration, Focal	3 (6%)	7 (14%)	3 (6%)	8 (16%)	
Pars Distalis, Degeneration, Cystic, Focal	2 (4%)	2 (4%)	3 (00)	0 (100)	
Pars Distalis, Hemorrhage, Focal	2 (4%)	2 (4%)	1 (2%)	3 (6%)	
Pars Distalis, Hyperplasia, Focal	4 (8%)	2 (4%)	3 (6%)	1 (2%)	
Pars Distalis, Pars Nervosa, Hemorrhage,	. ,	- (7	5 (55)	1 (10)	
Focal			1 (2%)		
Pars Intermedia, Hemorrhage, Focal			1 (2%)		
Rathke's Cleft, Cyst			_ (-,	1 (2%)	
Rathke's Cleft, Hemorrhage	1 (2%)		2 (4%)	2 (4%)	
Rathke's Cleft, Hyperplasia, Cystic		1 (2%)	_ (-*,	2 (10)	
Thyroid Gland	(47)	(44)	(43)	(47)	
C-Cell, Hyperplasia	45 (96%)	42 (95%)	41 (95%)	44 (94%)	
C-Cell, Hyperplasia, Focal			1 (2%)		
Follicle, Cyst	1 (2%)		1 (2%)	2 (4%)	
Follicle, Degeneration, Cystic, Focal	2 (4%)			V = - V	
Follicle, Mineralization, Focal	45 (96%)	43 (98%)	42 (98%)	42 (89%)	
Follicular Cell, Hypertrophy	4 (9%)	13 (30%)	33 (77%)	40 (85%)	
Follicular Cell, Hypertrophy, Focal	1 (2%)				
GENERAL BODY SYSTEM					
Tissue NOS	(5)	(6)	(2)	(7)	
Abdominal, Fibrosis	, - ,	· = /	1 (50%)	1 ' 1	
Mediastinum, Hemorrhage		1 (17%)	± (500)		

GENITAL SYSTEM

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

1000MG/L 2000MG/L 0 MG/L 125 MG/L FISCHER 344 RATS MALE GENITAL SYSTEM - CONT (50) (50) (50) (50)Epididymis 1 (2%) Fibrosis 2 (4%) 1 (2%) 1 (2%) Inflammation, Chronic (2) Penis 1 (50%) Thrombosis (50) (50)Preputial Gland (48)(49)1 (2%) Atrophy 1 (2%) 1 (2%) Cvst 2 (4%) 2 (4%) 1 (2%) Degeneration, Cystic 1 (2%) 1 (2%) Hyperplasia, Cystic 18 (36%) 20 (40%) 22 (46%) 12 (24%) Inflammation, Chronic 1 (2%) Necrosis (50) (50)(50) (49)Prostate 30 (60%) 29 (58%) 21 (42%) 23 (47%) Inflammation, Chronic 4 (8%) 3 (6%) 2 (4%) 3 (6%) Mineralization, Focal 4 (8%) 2 (4%) 11 (22%) 11 (22%) Epithelium, Hyperplasia, Focal (50) (50) (50) (50) Testes 10 (20%) 9 (18%) 6 (12%) 4 (8%) Atrophy 1 (2%) Bilateral, Atrophy 1 (2%) Germinal Epithelium, Atrophy 1 (2%) Germinal Epithelium, Degeneration 1 (2%) 1 (2%) 1 (2%) 3 (6%) Interstitial Cell, Hyperplasia, Focal HEMATOPOIETIC SYSTEM (48)(50)(49)(48)Bone Marrow 1 (2%) Angiectasis 1 (2%) Atrophy 2 (4%) Fibrosis 28 (58%) 35 (73%) 41 (82%) 40 (82%) Hyperplasia 2 (4%) Myeloid Cell, Erythroid Cell, Hyperplasia (34)(24)(26)(34)Lymph Node 1 (3%) Ectasia 1 (3%) Hemorrhage 1 (4%) Deep Cervical, Hemorrhage Deep Cervical, Hyperplasia, Plasma Cell 1 (3%) Mediastinal, Angiectasis Mediastinal, Ectasia 1 (4%) 3 (9%) 7 (29%) 5 (19%) 5 (15%) 1 (3%) 3 (9%) 2 (8%) 2 (8%) Mediastinal, Hemorrhage 2 (8%) Mediastinal, Hyperplasia, Histiocytic 3 (13%) 1 (3%) 1 (3%) 1 (4%) 3 (9%) Mediastinal, Hyperplasia, Lymphoid 1 (3%) 2 (8%) Mediastinal, Hyperplasia, Plasma Cell

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FISCHER 344 RATS MALE 0 MG/L 125 MG/L 1000MG/L 2000MG/L HEMATOPOIETIC SYSTEM - CONT Mediastinal, Infiltration Cellular, Polymorphonuclear 1 (4%) Mediastinal, Inflammation, Chronic Active 1 (3%) Mediastinal, Inflammation, Suppurative 1 (4%) Pancreatic, Angiectasis 2 (6%) Pancreatic, Ectasia 3 (9%) 3 (13%) 3 (12%) 6 (18%) Pancreatic, Hemorrhage 5 (15%) 3 (13%) 1 (4%) 1 (3%) Pancreatic, Hyperplasia, Histiocytic 8 (24%) 5 (21%) 9 (35%) 6 (18%) Pancreatic, Hyperplasia, Lymphoid 1 (3%) 1 (4%) Pancreatic, Pigmentation 1 (3%) 1 (4%) 1 (4%) Renal, Hemorrhage 1 (4%) Renal, Hyperplasia, Focal, Histiocytic 1 (4%) Renal, Hyperplasia, Lymphoid 1 (4%) Lymph Node, Mesenteric (49)(50)(49)(50)Amyloid Deposition 1 (2%) Ectasia 1 (2%) 1 (2%) 1 (2%) 3 (6%) Hemorrhage 2 (4%) 3 (6%) Hyperplasia, Focal, Histiocytic 1 (2%) Hyperplasia, Histiocytic 3 (6%) 3 (6%) 1 (2%) Hyperplasia, Lymphoid 2 (4%) 1 (2%) 1 (2%) Spleen (48)(49) (49)(50)Amyloid Deposition 1 (2%) Angiectasis, Focal 2 (4%) 1 (2%) 3 (6%) Atrophy 1 (2%) Congestion 1 (2%) 1 (2%) Fibrosis, Focal 2 (4%) 2 (4%) 4 (8%) Hematopoietic Cell Proliferation 2 (4%) 6 (12%) 4 (8%) 11 (22%) Hemorrhage 1 (2%) 1 (2%) Hyperplasia, Focal, Histiocytic 1 (2%) 1 (2%) 2 (4%) 1 (2%) Infarct, Multiple 1 (2%) Metaplasia, Focal, Lipocyte 1 (2%) Necrosis 1 (2%) Pigmentation 1 (2%) Pigmentation, Focal 1 (2%) Capsule, Accessory Spleen, Focal 1 (2%) Capsule, Fibrosis, Focal 1 (2%) Lymphoid Follicle, Atrophy 1 (2%) Thymus (48)(48)(49)(47)Angiectasis 1 (2%) Cyst 1 (2%) Hemorrhage 1 (2%) 3 (6%) 2 (4%) Hyperplasia, Lymphoid 2 (4%) 1 (2%)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 96010-03

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

Study Type: CHRONIC Route: DOSED WATER

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
INTEGUMENTARY SYSTEM				
Mammary Gland	(45)	(43)	(47)	(44)
Cyst Dilatation Hyperplasia Inflammation, Chronic, Focal	7 (16%) 1 (2%)	7 (16%) 1 (2%) (50)	7 (15%) 2 (4%) (50)	1 (2%) 2 (5%) 2 (5%) 1 (2%) (50)
Skin Cyst Epithelial Inclusion	(50) 3 (6%)	1 (2%)	3 (6%)	1 (2%)
Fibrosis, Focal Hyperkeratosis, Focal Inflammation, Chronic, Focal Ulcer	1 (2%)	2 (4%) 2 (4%) 1 (2%)	1 (2%)	
Artery, Subcutaneous Tissue, Thrombosis Epidermis, Hyperplasia, Focal Lip, Inflammation, Chronic, Focal Subcutaneous Tissue, Cyst	1 (2%)	1 (2%) 1 (2%) 1 (2%)		
Subcutaneous Tissue, Cyst Epithelial Inclusion Subcutaneous Tissue, Hyperplasia, Focal, Histiocytic			1 (2%)	1 (2%)
Subcutaneous Tissue, Inflammation, Chronic, Focal Subcutaneous Tissue, Inflammation, Chronic, Focal, Suppurative		1 (2%)	1 (2%)	
MUSCULOSKELETAL SYSTEM				
Bone Cranium, Hyperostosis	(50)	(50) 1 (2%)	(50)	(50)
NERVOUS SYSTEM				
Brain Compression, Focal Hemorrhage, Focal Cerebrum, Ventricle, Hydrocephalus	(50) 6 (12%) 2 (4%)	(50) 6 (12%) 2 (4%) 1 (2%)	(50) 7 (14%) 4 (8%)	(50) 6 (12%) 6 (12%)

RESPIRATORY SYSTEM

a Number of animals examined microscopically at site and number of animals with lesion

Hyperplasia, Focal, Histiocytic

Epithelium, Hyperplasia, Focal

Inflammation, Chronic Active, Diffuse

Inflammation, Chronic, Focal

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

FISCHER 344 RATS MALE 0 MG/L 125 MG/L 1000MG/L 2000MG/L RESPIRATORY SYSTEM - CONT Lung (50)(50)(50) (50) Congestion 2 (4%) 1 (2%) 3 (6%) Foreign Body, Focal 1 (2%) Hemorrhage 1 (2%) Hemorrhage, Focal 3 (6%) 1 (2%) 2 (4%) 2 (4%) Hyperplasia, Focal, Histiocytic 1 (2%) 1 (2%) Hyperplasia, Histiocytic 2 (4%) 1 (2%) 1 (2%) 2 (4%) Infiltration Cellular, Mixed Cell 1 (2%) 3 (6%) 1 (2%) 2 (4%) Inflammation, Chronic, Focal 5 (10%) 2 (4%) 3 (6%) 3 (6%) Inflammation, Focal, Suppurative 1 (2%) Alveolar Epithelium, Hyperplasia, Focal 8 (16%) 5 (10%) 3 (6%) 4 (8%) Alveolar Epithelium, Metaplasia, Squamous 1 (2%) Alveolus, Edema, Focal 1 (2%) Alveolus, Hyperplasia, Focal, Histiocytic 1 (2%) Interstitium, Edema 1 (2%) 1 (2%) Mediastinum, Edema 1 (2%) 1 (2%) Nose (49) (49)(49)(50)Foreign Body 1 (2%) 2 (4%) 1 (2%) Inflammation, Chronic 1 (2%) Inflammation, Suppurative 1 (2%) 1 (2%) 6 (12%) 1 (2%) Nasolacrimal Duct, Inflammation 1 (2%) 3 (6%) 1 (2%) Olfactory Epithelium, Hyperplasia, Focal 1 (2%) Respiratory Epithelium, Hyperplasia, Focal 1 (2%) Trachea (50) (49)(50)(50)Peritracheal Tissue, Edema 1 (2%) SPECIAL SENSES SYSTEM Eye (50) (48)(46)(50) Atrophy 2 (4%) Cataract 2 (4%) 1 (2%) 2 (4%) Exudate 1 (2%) Cornea, Inflammation, Chronic 1 (2%) Cornea, Retrobulbar, Inflammation, Chronic Active 1 (2%) Retina, Degeneration 2 (4%) 1 (2%) 2 (4%) Harderian Gland (49) (49)(49)(50)Fibrosis, Focal 1 (2%)

1 (2%)

1 (2%)

1 (2%)

1 (2%)

1 (2%)

1 (2%)

1 (2%)

1 (2%)

a Number of animals examined microscopically at site and number of animals with lesion

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 05/27/03 Time: 13:20:00

2000MG/L 0 MG/L 125 MG/L 1000MG/L FISCHER 344 RATS MALE URINARY SYSTEM (47)(46)(49)(49)Kidnev 1 (2%) Cyst 1 (2%) Cyst, Multiple 1 (2%) Hydronephrosis 1 (2%) Infarct 1 (2%) 1 (2%) Infarct, Multiple 1 (2%) Metaplasia, Focal, Lipocyte 47 (96%) 44 (96%) 48 (98%) 45 (96%) Nephropathy Cortex, Medulla, Atrophy 1 (2%) Pelvis, Infiltration Cellular, Mixed Cell 1 (2%) 1 (2%) Pelvis, Transitional Epithelium, Hyperplasia 1 (2%) 1 (2%) Renal Tubule, Accumulation, Hyaline Droplet 4 (8%) 2 (4%) 1 (2%) Renal Tubule, Hyperplasia, Focal 4 (9%) 1 (2%) 4 (8%) 4 (9%) Renal Tubule, Pigmentation (48)(49)(47)(50)Urinary Bladder Calculus Micro Observation Only 1 (2%) 2 (4%) Edema 2 (4%) Hemorrhage 1 (2%) Inflammation, Chronic 1 (2%) Serosa, Inflammation, Focal 1 (2%) Transitional Epithelium, Hyperplasia, Diffuse

a Number of animals examined microscopically at site and number of animals with lesion

 END	OF	REPORT	
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NTP Experiment-Test: 96010-03 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Study Type: CHRONIC Route: DOSED WATER

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT05 Date: 05/27/03 Time: 13:24:09

FINAL#1/RATS

Facility: Southern Research Institute

Chemical CAS #: 7775-09-9

Lock Date: 10/16/01

Cage Range: All

Reasons For Removal: All
Removal Date Range: All

Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion

Noute: DOSED WATER							
FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L			
DISPOSITION SUMMARY							
Animals Initially in Study	50	50	50	50			
Early Deaths	_	_	_	_			
Natural Death	3	3	6	5			
Moribund Sacrifice	10	11	11	4			
Survivors	3.5	2.4	2.2	4.0			
Terminal Sacrifice	37	34	32	40			
Natural Death		2	1	1			
Moribund Sacrifice		2					
Animals Examined Microscopically	50	50	50	50			
ALIMENTARY SYSTEM Intestine Large, Colon Leiomyosarcoma	(50) 1 (2%)	(48)	(46)	(49)			
Intestine Small, Jejunum	(49)	(47)	(44)	(45)			
Leiomyoma		1 (2%)					
Liver	(50)	(50)	(50)	(50)			
Cholangiocarcinoma		1 (2%)					
Histiocytic Sarcoma		1 (2%)					
Histiocytic Sarcoma, Metastatic, Skeletal							
Muscle	(10)	1 (2%)	(12)	12.53			
Mesentery	(18)	(10)	(13)	(16)			
Carcinoma Oral Mucosa			(1)	1 (6%) (1)			
Squamous Cell Carcinoma			(1)	1 (100%)			
Pancreas	(50)	(49)	(49)	(49)			
Acinus, Adenoma	2 (4%)	(+ >)	(1)	(10)			
Salivary Glands	(50)	(50)	(50)	(50)			
Stomach, Forestomach	(50)	(50)	(50)	(50)			
Tooth		(2)	(2)	(1)			
Odontoma		1 (50%)					
CARDIOVASCULAR SYSTEM							

Report: PEIRPT05 Date: 05/27/03 Time: 13:24:09

FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Malignant		1 (2%)		1 (2%)
Pheochromocytoma Complex				1 (2%)
Pheochromocytoma Benign	2 (4%)	1 (2%)	1 (2%)	1 (2%)
Islets, Pancreatic	(50)	(49)	(49)	(50)
Adenoma	2 (4%)	1 (2%)		
Carcinoma	1 (2%)	1 (2%)		1 (2%)
Pituitary Gland	(49)	(49)	(50)	(50)
Pars Distalis, Adenoma	23 (47%)	18 (37%)	17 (34%)	24 (48%)
Pars Distalis, Adenoma, Multiple	1 (20)	2 (60)		1 (2%)
Pars Distalis, Carcinoma Pars Intermedia, Adenoma	1 (2%) 1 (2%)	3 (6%)		1 /29)
Thyroid Gland	1 (2*) (47)	1 (2%) (47)	(43)	1 (2%)
Bilateral, C-Cell, Adenoma	1 (2%)	2 (4%)	(43)	(46)
C-Cell, Adenoma	11 (23%)	2 (46) 8 (17%)	11 (26%)	9 (20%)
C-Cell, Carcinoma	1 (2%)	3 (6%)	1 (2%)	3 (7%)
Follicular Cell, Adenoma	1 (20)	3 (0.07	1 (20)	2 (4%)
Follicular Cell, Carcinoma	1 (2%)		1 (2%)	2 (4%)
GENERAL BODY SYSTEM				
Tissue NOS	(1)	(2)	(4)	(6)
Mediastinum, Carcinoma, Metastatic, Thyroid				
Gland		1 (50%)		
Mediastinum, Carcinoma, Metastatic, Zymbal's			1 (252)	
Gland			1 (25%)	
Mediastinum, Histiocytic Sarcoma Mediastinum, Sarcoma			1 (25%)	1 /179)
mediastinum, sarcoma				1 (17%)
GENITAL SYSTEM				
Clitoral Gland	(49)	(50)	(50)	(49)
Adenoma	11 (22%)	5 (10%)	12 (24%)	4 (8%)
Carcinoma	3 (6%)	1 (2%)	12 (210)	2 (00)
Sarcoma	5 (55)	_ (_ 3/		1 (2%)
Ovary	(50)	(50)	(49)	(50)
Granulosa Cell Tumor Benign	1 (2%)			
	1 (2%)		(2)	1 (2%)

Route: DOSED WATER						
FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L		
ENITAL SYSTEM - cont Uterus	(50)	(50)	(49)	(50)		
Carcinoma, Metastatic, Mesentery		(30)	(40)	1 (2%)		
Sarcoma Stromal Endometrium, Polyp Stromal	1 (2%) 8 (16%)	8 (16%)	7 (14%)	7 (14%)		
Endometrium, Polyp Stromal, Multiple Endometrium, Sarcoma	1 (2%)		2 (4%)	1 (2%)		
HEMATOPOIETIC SYSTEM		2004				
Bone Marrow Lymph Node Mediastinal, Histiocytic Sarcoma	(50) (36)	(49) (34)	(50) (30) 1 (3%)	(50) (39)		
Mediastinal, Sarcoma Lymph Node, Mandibular	(4)	(6)	(4)	1 (3%) (5)		
Lymph Node, Mesenteric	(50)	(49)	(49)	(50)		
Spleen Sarcoma	(50)	(50)	(50)	(50) 1 (2%)		
Thymus Sarcoma	(49)	(48)	(48)	(48) 1 (2%)		
INTEGUMENTARY SYSTEM						
Mammary Gland	(50)	(50)	(50)	(50)		
Adenoma Carcinoma Carcinoma, Multiple	3 (6%) 2 (4%) 1 (2%)	1 (2%)		2 (4%) 2 (4%)		
Fibroadenoma Fibroadenoma, Multiple Histiocytic Sarcoma, Metastatic, Skeletal	23 (46%) 10 (20%)	26 (52%) 3 (6%)	23 (46%) 8 (16%)	27 (54%) 6 (12%)		
Muscle Skin	(50)	1 (2%) (50)	(50)	(50)		
Basal Cell Carcinoma Keratoacanthoma	1 (2%)			1 (2%)		
Trichoepithelioma Pinna, Neural Crest Tumor Subcutaneous Tissue, Carcinoma, Metastatic,	2 (4%) 1 (2%)			, ,		
Mammary Gland Subcutaneous Tissue, Fibroma Subcutaneous Tissue, Fibrosarcoma Subcutaneous Tissue, Histiocytic Sarcoma Subcutaneous Tissue, Histiocytic Sarcoma,	4 (8%)	1 (2%) 1 (2%) 1 (2%) 1 (2%)	1 (2%)	1 (2%)		

Study Type: CHRONIC WATE Route: DOSED WATER	ER DISINFECTIO	N BYPRODUCTS	(SODIUM CHLO	RATE)	Date: 05/27/03 Time: 13:24:09
FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
NTEGUMENTARY SYSTEM - cont Metastatic, Skeletal Muscle Subcutaneous Tissue, Lipoma Subcutaneous Tissue, Sarcoma	1 (2%)	1 (2%)		1 (2%)	
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Osteosarcoma Skeletal Muscle Histiocytic Sarcoma Rhabdomyosarcoma		1 (2%) (2) 1 (50%) 1 (50%)	(1)	(1)	
NERVOUS SYSTEM					
Brain Carcinoma, Metastatic, Pituitary Gland	(49)	(50) 2 (4%)	(50)	(50)	
RESPIRATORY SYSTEM					
Lung Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma	(50) 1 (2%) 1 (2%)	(50) 1 (2%)	(50)	(50)	
Carcinoma, Metastatic, Mammary Gland Histiocytic Sarcoma	1 (2%)	1 (2%)			
Histiocytic Sarcoma, Metastatic, Skeletal Muscle		1 (2%)			
Sarcoma Nose	(50)	(50)	(50)	1 (2%) (50)	
SPECIAL SENSES SYSTEM					
Eye Harderian Gland Histiocytic Sarcoma Squamous Cell Carcinoma, Metastatic, Oral	(50) (50)	(49) (50) 1 (2%)	(47) (50)	(50) (50)	
Mucosa Zymbal's Gland Carcinoma	(1)		(1) 1 (100°	1 (2%) (1) %)	

NTP Experiment-Test: 96010-03 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT05

Study Type: CHRONIC Date: 05/27/03 Route: DOSED WATER Time: 13:24:09

FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
URINARY SYSTEM		77.40.		
Kidney Sarcoma	(50)	(49)	(47)	(47) 1 (2%)
Urinary Bladder Transitional Epithelium, Papilloma	(50)	(48)	(50)	(50) 1 (2%)
SYSTEMIC LESIONS				
Multiple Organs Histiocytic Sarcoma	* (50)	* (50) 2 (4%)	* (50) 1 (2%)	*(50)
Leukemia Mononuclear Lymphoma Malignant Mesothelioma Malignant	11 (22%)	9 (18%)		9 (18%)

^{*} Number of animals with any tissue examined microscopically

NTP Experiment-Test: 96010-03 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT05

Date: 05/27/03

Study Type: CHRONIC Route: DOSED WATER

Time: 13:24:09 FISCHER 344 RATS FEMALE 0 MG/L 125 MG/L 1000MG/L 2000MG/L TUMOR SUMMARY Total Animals with Primary Neoplasms (b) 48 46 48 Total Primary Neoplasms 133 102 101 118 Total Animals with Benign Neoplasms 46 42 47 44 Total Benign Neoplasms 77 107 82 87 Total Animals with Malignant Neoplasms 22 19 22 Total Malignant Neoplasms 25 25 19 31 Total Animals with Metastatic Neoplasms 5 2 2 1 2 8 Total Metastatic Neoplasm Total Animals with Malignant Neoplasms Uncertain Primary Site Total Animals with Neoplasms Uncertain-Benign or Malignant 1

Total Uncertain Neoplasms

a Number of animals examined microscopically at site and number of animals with lesion

b Primary tumors: all tumors except metastatic tumors

NTP Experiment-Test: 96010-03 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Route: DOSED WATER Report: PEIRPT05 Date: 05/27/03 Time: 13:24:09

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
DISPOSITION SUMMARY					
Animals Initially in Study Early Deaths	50	50	50	50	
Moribund Sacrifice Natural Death Accidently Killed Survivors	10 3 1	13 10	11 8	14 8	
Terminal Sacrifice	36	27	31	28	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Intestine Large, Colon	(48)	(47)	(44)	(49)	
Intestine Large, Cecum	(47)	(46)	(43)	(47)	
Intestine Small, Duodenum	(49)	(46)	(46)	(47)	
Intestine Small, Jejunum	(47)	(46)	(42)	(44)	
Intestine Small, Ileum	(47)	(46)	(42)	(47)	
Liver	(50)	(50)	(48)	(50)	
Hemangiosarcoma		1 (2%)			
Hepatocellular Adenoma		3 (6%)			
Histiocytic Sarcoma	1 (2%)	1 (2%)			
Mesentery	(19)	(20)	(19)	(23)	
Carcinoma, Metastatic, Pancreas		1 (5%)		• •	
Hemangiosarcoma, Metastatic, Liver		1 (5%)			
Histiocytic Sarcoma	1 (5%)	1 (5%)			
Osteosarcoma	1 (5%)				
Pancreas	(49)	(49)	(49)	(50)	
Hemangiosarcoma, Metastatic, Liver		1 (2%)			
Acinus, Adenoma		2 (4%)	1 (2%)		
Acinus, Adenoma, Multiple		1 (2%)			
Acinus, Carcinoma		1 (2%)			
Salivary Glands	(49)	(50)	(50)	(50)	
Fibrosarcoma			1 (2%)		
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Schwannoma Malignant	1 (2%)				
Squamous Cell Papilloma				1 (2%)	
Stomach, Glandular	(49)	(48)	(48)	(50)	
Tongue	(1)	(1)	(1)	(1)	
Sarcoma			1 (1009	5)	
Squamous Cell Carcinoma		1 (100%)		

NTP Experiment-Test: 96010-03 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC

Route: DOSED WATER

Mediastinum, Carcinoma, Metastatic, Zymbal's

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT05

Date: 05/27/03

Time: 13:24:09

FISCHER 344 RATS MALE 0 MG/L 125 MG/L 1000MG/L 2000MG/L ALIMENTARY SYSTEM - cont Squamous Cell Papilloma 1 (100%) CARDIOVASCULAR SYSTEM Blood Vessel (1) (2) Aorta, Osteosarcoma 1 (100%) Heart (50)(50) (50)(50) Carcinoma, Metastatic, Zymbal's Gland 1 (2%) Schwannoma Benign 1 (2%) ENDOCRINE SYSTEM Adrenal Cortex (49)(49)(50)(50)Carcinoma 1 (2%) Osteosarcoma, Metastatic, Bone 1 (2%) Adrenal Medulla (49)(49)(50)(50)1 (2%) Ganglioneuroma Pheochromocytoma Malignant 3 (6%) 1 (2%) 1 (2%) Pheochromocytoma Benign 6 (12%) 3 (6%) 3 (6%) 5 (10%) Bilateral, Ganglioneuroma 1 (2%) Bilateral, Pheochromocytoma Benign 1 (2%) 3 (6%) Islets, Pancreatic (50) (49)(49)(50) Adenoma 3 (6%) 4 (8%) 3 (6%) 5 (10%) Carcinoma 2 (4%) 1 (2%) 2 (4%) Pituitary Gland (48)(50) (49)(50)Pars Distalis, Adenoma 16 (33%) 15 (30%) 20 (41%) 15 (30%) Pars Intermedia, Adenoma 1 (2%) 1 (2%) Thyroid Gland (47)(44)(43)(47)Bilateral, C-Cell, Adenoma, Multiple 1 (2%) C-Cell, Adenoma 9 (19%) 9 (20%) 5 (12%) 9 (19%) C-Cell, Carcinoma 2 (4%) 2 (5%) 1 (2%) Follicular Cell, Adenoma 1 (2%) 2 (4%) Follicular Cell, Carcinoma 4 (9%) GENERAL BODY SYSTEM Peritoneum (1) (1) Tissue NOS (5) (6) (2) (7) Abdominal, Paraganglioma 1 (20%)

NTP Experiment-Test: 96010-03 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC

Route: DOSED WATER

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT05

Date: 05/27/03

Time: 13:24:09

FISCHER 344 RATS MALE 0 MG/L 125 MG/L 1000MG/L 2000MG/L GENERAL BODY SYSTEM - cont Gland 1 (17%) Mediastinum, Squamous Cell Carcinoma, Metastatic, Lung 1 (17%) Pelvic, Leiomyoma 1 (20%) Thoracic, Fibroma 1 (14%) GENITAL SYSTEM Epididymis (50)(50) (50)(50)Preputial Gland (48)(50) (49)(50)Adenoma 1 (2%) 6 (12%) 5 (10%) 5 (10%) Carcinoma 3 (6%) 1 (2%) 2 (4%) 2 (4%) (50) Prostate (49)(50) (50)Seminal Vesicle (50) (49)(50)(50)Testes (50)(50) (50)(50)Bilateral, Interstitial Cell, Adenoma 1 (2%) Bilateral, Interstitial Cell, Adenoma, Multiple 40 (80%) 43 (86%) 42 (84%) 39 (78%) Interstitial Cell, Adenoma 2 (4%) 1 (2%) 2 (4%) 3 (6%) 3 (6%) Interstitial Cell, Adenoma, Multiple 5 (10%) 2 (4%) HEMATOPOIETIC SYSTEM Bone Marrow (48)(48)(50)(49)Lymph Node (34)(24)(26)(34) Histiocytic Sarcoma 1 (3%) Deep Cervical, Histiocytic Sarcoma 1 (3%) Mediastinal, Carcinoma, Metastatic, Zymbal's Gland 1 (4%) Lymph Node, Mandibular (3) (2) (3) (4) Lymph Node, Mesenteric (49)(50) (49)(50) Spleen (48)(49)(49)(50)Histiocytic Sarcoma 1 (2%) Capsule, Carcinoma, Metastatic, Pancreas 1 (2%) (48)(48)(49)(47)Carcinoma, Metastatic, Zymbal's Gland 1 (2%) Thymoma Benign 1 (2%)

NTP Experiment-Test: 96010-03 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Route: DOSED WATER

Report: PEIRPT05 Date: 05/27/03 Time: 13:24:09

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
NTEGUMENTARY SYSTEM				
Mammary Gland	(45)	(43)	(47)	(44)
Carcinoma		1 (2%)	1 (2%)	(/
Fibroadenoma	2 (4%)	1 (2%)	4 (9%)	4 (9%)
Skin	(50)	(50)	(50)	(50)
Basal Cell Carcinoma		1 (2%)		2 (4%)
Basal Cell Carcinoma, Multiple	4 (00)	1 (2%)	4 (00)	4 400)
Keratoacanthoma Trichoepithelioma	4 (8%)	2 (4%)	1 (2%)	1 (2%)
Subcutaneous Tissue, Fibroma	1 (2%) 9 (18%)	0 /10%)	4 (09)	7 (148)
Subcutaneous Tissue, Fibroma, Multiple	9 (106)	9 (18%) 1 (2%)	4 (8%) 1 (2%)	7 (14%) 1 (2%)
Subcutaneous Tissue, Fibrosarcoma	1 (2%)	2 (4%)	1 (25)	1 (26)
Subcutaneous Tissue, Histiocytic Sarcoma	1 (20)	1 (2%)		
Subcutaneous Tissue, Lipoma		1 (2%)		
Subcutaneous Tissue, Neural Crest Tumor	1 (2%)	1 (20)		
Subcutaneous Tissue, Osteosarcoma	_ (,			1 (2%)
Subcutaneous Tissue, Sarcoma			1 (2%)	_ (,
Subcutaneous Tissue, Schwannoma Malignant			1 (2%)	1 (2%)
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Osteosarcoma	1 (2%)			
Periosteum, Cranium, Fibrosarcoma, Metastatic, Skin		1 (2%)		
		TT		
ERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Zymbal's Gland				1 (2%)
Glioma Malignant		1 (2%)		
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma	1 (2%)	1 (2%)	2 (4%)	1 (20)
Alveolar/Bronchiolar Carcinoma Alveolar/Bronchiolar Carcinoma, Multiple	2 (4%) 1 (2%)	2 (4%)		1 (2%)
Carcinoma, Metastatic, Zymbal's Gland	1 (46)			1 (2%)

NTP Experiment-Test: 96010-03 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC ROUTE: DOSED WATER

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Report: PEIRPT05 Date: 05/27/03 Time: 13:24:09

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
RESPIRATORY SYSTEM - cont Primary Site Osteosarcoma, Metastatic, Bone Squamous Cell Carcinoma Nose Trachea	1 (2%) 1 (2%) (49) (50)	1 (2%) (49) (49)	(49) (50)	(50) (50)	
SPECIAL SENSES SYSTEM					
Еуе	(50)	(48)	(46)	(50)	
Retrobulbar, Fibrosarcoma, Metastatic, Skin Harderian Gland Carcinoma Zymbal's Gland Carcinoma	(49)	1 (2%) (49)	(49)	(50)	
	1 (2%)	(1) 1 (100%)	(1) 1 (100%)	(3) 1 (33%)	
URINARY SYSTEM					
Kidney Lipoma Mesenchymal Tumor Benign	(47)	(46) 1 (2%)	(49) 1 (2%)	(49) 1 (2%)	
Renal Tubule, Adenoma Urinary Bladder	(48)	1 (2%) (49)	(47)	(50)	
SYSTEMIC LESIONS					
Multiple Organs	* (50)	*(50)	*(50)	*(50)	
Histiocytic Sarcoma Leukemia Mononuclear	1 (2%) 13 (26%)	1 (2%) 21 (42%)	16 (32%)	23 (46%)	
Lymphoma Malignant Mesothelioma Malignant	1 (2%)	1 (2%)	2 (4%)	2 (4%)	

^{*} Number of animals with any tissue examined microscopically

NTP Experiment-Test: 96010-03 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Route: DOSED WATER Report: PEIRPT05 Date: 05/27/03 Time: 13:24:09

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b) Total Primary Neoplasms	49 135	50 152	50 12 4	50 150
Total Animals with Benign Neoplasms Total Benign Neoplasms	48 100	49 112	4 7 97	47 108
Total Animals with Malignant Neoplasms Total Malignant Neoplasms	27 34	32 40	24 27	32 42
Total Animals with Metastatic Neoplasms Total Metastatic Neoplasm	2 3	5 10		1 3
Total Animals with Malignant Neoplasms Uncertain Primary Site	1			
Total Animals with Neoplasms Uncertain- Benign or Malignant Total Uncertain Neoplasms	1 1			

a Number of animals examined microscopically at site and number of animals with lesion b Primary tumors: all tumors except metastatic tumors

	END OF REPORT			

NTP LAB: Southern Research Inst EXPERIMENT: 96010 TEST: 03

TEST TYPE: CHRONIC CONT: N01-ES-85420

PATHOLOGIST: FARNELL, DANIEL R.

STATISTICAL ANALYSIS OF PRIMARY TUMORS WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

CAGES FROM 0000 TO LAST CAGE

ROUTE: DOSED WATER

REPORT: PEIRPT08 DATE: 05/27/03 TIME: 13:29:04 PAGE: 1 NTP C#: 96010A CAS: 7775-09-9

FINAL#1/RATS

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE:

ALL

TREATMENT GROUPS:

INCLUDE ALL

NTP

LAB: Southern Research Inst EXPERIMENT: 96010 TEST: 03 TEST TYPE: CHRONIC

TEST TYPE: CHRONIC CONT: N01-ES-85420

PATHOLOGIST: FARNELL, DANIEL R.

Rats(FISCHER 344)

1005(110011111 311)

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex Adrenal Medulla Brain Clitoral/Preputial Gland Heart Islets, Pancreatic Kidney Liver Lung Ovary Pancreas Pituitary Gland Salivary Glands Spleen Testes Thymus Thyroid Gland Urinary Bladder

STATISTICAL ANALYSIS OF PRIMARY TUMORS

CAGES FROM 0000 TO LAST CAGE

ROUTE: DOSED WATER

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

REPORT: PEIRPT08 DATE: 05/27/03 TIME: 13:29:04

NTP C#: 96010A CAS: 7775-09-9 NTP

LAB: Southern Research Inst EXPERIMENT: 96010 TEST: 03

TEST TYPE: CHRONIC CONT: N01-ES-85420

PATHOLOGIST: FARNELL, DANIEL R.

STATISTICAL ANALYSIS OF PRIMARY TUMORS WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

CAGES FROM 0000 TO LAST CAGE

ROUTE: DOSED WATER

REPORT: PEIRPT08 DATE: 05/27/03 TIME: 13:29:04

NTP C#: 96010A CAS: 7775-09-9

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS

IN THE ANALYSIS OF WATER DISINFECTION BYPRODUCTS (SODIUM

Male Rats

Organ

Clitoral/Preputial Gland

Pancreas

Testes

Thyroid Gland: Follicular Cell

Carcinoma or Adenoma All Organs

Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated

Osteosarcoma

Morphology

Adenoma

Adenoma

Carcinoma

Osteosarcoma or Osteoma Benign Tumors

Carcinoma or Adenoma

Female Rats

Organ Clitoral/Preputial Gland Morphology _____ Adenoma

Carcinoma Carcinoma or Adenoma

Mammary Gland Carcinoma or Adenoma Pancreas Adenoma Carcinoma or Adenoma

Skin

Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthom a, Trichoepitheliom

Trichoepithelioma

Thyroid Gland: Follicular Cell

Adenoma

Carcinoma or Adenoma EXPERIMENT: 96010 TEST: 03

Date: 05/27/03 Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks ______ Females Males 0 MG/L 125 MG/L 1000MG/L 2000MG/L 0 MG/L 125 MG/L 1000MG/L 2000MG/L Dose _______ Adrenal Medulla Pheochromocytoma Benign TUMOR RATES _ _ _ _ _ _ _ _ _ _ _ 6/49 (12%) 4/49 (8%) 3/50 (6%) 8/50 (16%) 2/50 (4%) 1/50 (2%) 1/50 (2%) 1/50 (2%) OVERALL (a) 1/47.00 6/43.39 4/43.76 3/43.85 8/43.70 2/44.75 1/43.69 1/43.24 POLY-3 RATE (b) 2.3% 2.1% 18.3% 4.5% 2.3% 13.8% 9.1% 6.8% POLY-3 PERCENT (g) 2/31 (7%) 2/37 (5%) 1/36 (3%) 1/33 (3%) 1/41 (2%) 6/36 (17%) 3/27 (11%) 5/28 (18%) TERMINAL (d) 729 (T) 729 (T) 729 (T) 729 (T) 729 (T) 555 698 699 FIRST INCIDENCE STATISTICAL TESTS P=0.229P=0.405N P=0.510N P=0.540N P=0.464NP=0.316N LIFE TABLE P=0.169P=0.531NP=0.423N P=0.508N P=0.512N P=0.483NP=0.236N P=0.391P=0.229 P = 0.364NPOLY 3 P=0.399 P=0.428N P=0.506NP=0.506NP = 0.489NP=0.234N P=0.234P=0.361N POLY 1.5 P=0.477NP=0.418N P = 0.511NP=0.522N P=0.378NP=0.243NP=0.373POLY 6 P=0.223 P = 0.464NP=0.405N P=0.510NP = 0.540NLOGISTIC REGRESSION P=0.218P=0.378N P=0.274NP=0.310P=0.500NP = 0.500NP = 0.370NP = 0.233NP=0.403P=0.437N P=0.500N COCH-ARM / FISHERS P=0.241(e) P=0.393N (e) (e) ORDER RESTRICTED P=0.177(e) (e) Females Males 2000MG/L 0 MG/L 125 MG/L 1000MG/L 2000MG/L 1000MG/L Dose 0 MG/L 125 MG/L Adrenal Medulla Pheochromocytoma Malignant

Page 1

								
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	3/49 (6%) 3/43.39 6.9% 3/36 (8%) 729 (T)	0/49 (0%) 0/43.20 0.0% 0/27 (0%)	1/50 (2%) 1/43.97 2.3% 0/31 (0%) 667	1/50 (2%) 1/43.44 2.3% 1/28 (4%) 729 (T)	0/50 (0%) 0/44.75 0.0% 0/37 (0%)	1/50 (2%) 1/44.28 2.3% 0/36 (0%) 541	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	1/50 (2%) 1/47.00 2.1% 1/41 (2%) 729 (T)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.443N P=0.404N P=0.405N P=0.400N P=0.414N P=0.401N P=0.101N	P=0.176N P=0.119N P=0.118N P=0.125N (e) P=0.121N (e)	P=0.347N P=0.300N P=0.299N P=0.305N P=0.305N P=0.301N (e)	P=0.398N P=0.305N P=0.300N P=0.315N P=0.398N P=0.301N (e)	P=0.495 P=0.488 P=0.484 P=0.492 P=0.422 P=0.478 P=0.261	P=0.496 P=0.498 P=0.498 P=0.498 P=0.570 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.520 P=0.510 P=0.506 P=0.513 P=0.520 P=0.500 (e)
ORDER RESTRICTED	P=U.1U1N === ===== ====	(e) :=========	(e) ==== =====	(e) =========	P=U.ZDI	(6) ==========	(e) =========	: * = = = = = = = = = = = = = = = = = =

Date: 05/27/03 03 EXPERIMENT: 96010 TEST: 03 Page 2
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

=======================================	=======================================		Sacrifice at		=======================================			=======
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000 MG /L	0 MG/L		emales	2000 M G/L
=======================================	=======================================	=========		===========	 ===========		=========	_==========
Adrenal Medulla Pheochromocytoma	: Benign, Compl	ex, Malignant	, NOS					
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	9/49 (18%) 9/43.39 20.7% 9/36 (25%) 729 (T)	4/49 (8%) 4/43.76 9.1% 3/27 (11%) 555	4/50 (8%) 4/44.09 9.1% 2/31 (7%) 667	9/50 (18%) 9/43.70 20.6% 6/28 (21%) 699	2/50 (4%) 2/44.75 4.5% 2/37 (5%) 729 (T)	2/50 (4%) 2/44.28 4.5% 1/36 (3%) 541	1/50 (2%) 1/43.24 2.3% 1/33 (3%) 729 (T)	3/50 (6%) 3/47.00 6.4% 3/41 (7%) 729 (T)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.250 P=0.331 P=0.336 P=0.327 P=0.317 P=0.347 P=0.240N	P=0.237N P=0.110N P=0.109N P=0.117N P=0.126N P=0.116N (e)	P=0.175N P=0.107N P=0.108N P=0.110N P=0.126N P=0.109N (e)	P=0.389 P=0.598N P=0.588N P=0.591 P=0.498 P=0.584N (e)	P=0.454 P=0.430 P=0.423 P=0.435 P=0.426 P=0.411 P=0.430	P=0.684 P=0.690 P=0.691 P=0.690 P=0.691N P=0.691N (e)	P=0.540N P=0.512N P=0.506N P=0.522N P=0.540N P=0.500N (e)	P=0.547 P=0.522 P=0.514 P=0.530 P=0.547 P=0.500 (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	2000MG/L
Clitoral/Preputial Gla Adenoma			==========					
TUMOR RATES								
DVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) FERMINAL (d) FIRST INCIDENCE	1/48 (2%) 1/42.39 2.4% 1/35 (3%) 729 (T)	6/49 (12%) 6/43.79 13.7% 5/27 (19%) 542	5/50 (10%) 5/44.22 11.3% 3/31 (10%) 626	5/50 (10%) 5/44.37 11.3% 3/28 (11%) 465	11/49 (22%) 11/44.20 24.9% 10/36 (28%) 595	5/50 (10%) 5/43.69 11.4% 5/36 (14%) 729 (T)	12/50 (24%) 12/44.69 26.9% 8/33 (24%) 511	4/49 (8%) 4/46.00 8.7% 4/40 (10%) 729 (T)
STATISTICAL TESTS								
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS	P=0.227 P=0.287 P=0.289 P=0.277 P=0.287 P=0.287	P=0.031 * P=0.060 P=0.062 P=0.056 P=0.062 P=0.059	P=0.086 P=0.111 P=0.111 P=0.108 P=0.110 P=0.112	P=0.075 P=0.111 P=0.113 P=0.107 P=0.112 P=0.112	P=0.132N P=0.131N P=0.147N P=0.119N P=0.150N P=0.179N	P=0.083N P=0.085N P=0.083N P=0.089N P=0.086N P=0.079N	P=0.418 P=0.512 P=0.518 P=0.499 P=0.499 P=0.522	P=0.028N* P=0.035N* P=0.038N* P=0.033N* P=0.034N* P=0.045N*

O3 EXPERIMENT: 96010 TEST: 03 Page 3
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 05/27/03

=======================================			Sacrifice at 1		=======================================	=======================================	==========	===========
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F6 125 MG/L	emales 1000MG/L	2000MG/L
	=======================================	========	=========			======± == :	•••• •	=======================================
Clitoral/Preputial Glam Carcinoma	nd							
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	3/48 (6%) 3/43.05 7.0% 2/35 (6%) 511	1/49 (2%) 1/43.20 2.3% 1/27 (4%) 729 (T)	2/50 (4%) 2/43.76 4.6% 1/31 (3%) 721	2/50 (4%) 2/43.91 4.6% 1/28 (4%) 590	3/49 (6%) 3/43.75 6.9% 3/36 (8%) 729 (T)	1/50 (2%) 1/43.69 2.3% 1/36 (3%) 729 (T)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/49 (0%) 0/46.00 0.0% 0/40 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.573 P=0.555N P=0.554N P=0.555N P=0.549N P=0.551N P=0.386N	P=0.369N P=0.304N P=0.299N P=0.317N P=0.308N P=0.301N (e)	P=0.539N P=0.492N P=0.488N P=0.504N P=0.481N P=0.480N (e)	P=0.554N P=0.491N P=0.485N P=0.503N P=0.488N P=0.480N (e)	P=0.054N P=0.054N P=0.055N P=0.054N P=0.054N P=0.058N P=0.018N*	P=0.305N P=0.305N P=0.303N P=0.307N P=0.305N P=0.301N (e)	P=0.136N P=0.120N P=0.118N P=0.125N (e) P=0.117N (e)	P=0.103N P=0.110N P=0.113N P=0.107N (e) P=0.121N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	2000 M G/L
Clitoral/Preputial Gla Carcinoma or Aden						. = = = = = = = = = = = = = = = = = = =		
TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	4/48 (8%) 4/43.05 9.3% 3/35 (9%) 511	7/49 (14%) 7/43.79 16.0% 6/27 (22%) 542	7/50 (14%) 7/44.25 15.8% 4/31 (13%) 626	6/50 (12%) 6/44.84 13.4% 3/28 (11%) 465	14/49 (29%) 14/44.20 31.7% 13/36 (36%) 595	6/50 (12%) 6/43.69 13.7% 6/36 (17%) 729 (T)	12/50 (24%) 12/44.69 26.9% 8/33 (24%) 511	4/49 (8%) 4/46.00 8.7% 4/40 (10%) 729 (T)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.372 P=0.461 P=0.463 P=0.454 P=0.463 P=0.462 P=0.344	P=0.162 P=0.270 P=0.276 P=0.251 P=0.273 P=0.274 (e)	P=0.218 P=0.276 P=0.280 P=0.266 P=0.283 P=0.286 (e)	P=0.296 P=0.395 P=0.398 P=0.384 P=0.389 P=0.397 (e)	P=0.039N* P=0.036N* P=0.042N* P=0.031N* P=0.044N* P=0.059N P=0.003N**	P=0.036N* P=0.037N* P=0.036N* P=0.039N* P=0.035N* (e)	P=0.502N P=0.395N P=0.389N P=0.408N P=0.417N P=0.387N (e)	P=0.004N** P=0.005N** P=0.006N** P=0.005N* P=0.006N** P=0.009N** (e)

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Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

=== == =======	==========	rerminai		105 weeks				
Dose	0 MG/L	125 MG /L	Males 1000MG/L	2000MG/L	0 MG/L	I 125 MG/L	Females 1000MG/L	2000MG/L
Islets, Pancreatic Adenoma			=======================================			=======================================	=== ==== :	
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	3/50 (6%) 3/43.72 6.9% 3/36 (8%) 729 (T)	4/49 (8%) 4/43.59 9.2% 2/27 (7%) 663	3/49 (6%) 3/43.52 6.9% 2/31 (7%) 714	5/50 (10%) 5/43.62 11.5% 4/28 (14%) 681	2/50 (4%) 2/44.75 4.5% 2/37 (5%) 729 (T)	1/49 (2%) 1/43.02 2.3% 1/36 (3%) 729 (T)	0/49 (0%) 0/42.24 0.0% 0/32 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.274 P=0.335 P=0.338 P=0.327 P=0.321 P=0.339 P=0.355	P=0.381 P=0.498 P=0.499 P=0.488 P=0.482 P=0.489	P=0.597 P=0.661 P=0.658 P=0.657 P=0.626 P=0.651	P=0.238 P=0.355 P=0.358 P=0.343 P=0.310 P=0.357 (e)	P=0.102N P=0.104N P=0.105N P=0.104N P=0.102N P=0.106N P=0.067N	P=0.510N P=0.514N P=0.512N P=0.515N P=0.510N P=0.508N (e)	P=0.271N P=0.250N P=0.246N P=0.257N (e) P=0.253N (e)	P=0.216N P=0.226N P=0.230N P=0.223N (e) P=0.247N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000WG/T) . vg /r		remales	
=======================================	0 MG/L	123 MG/L	1000MG/L	2000MG/L	0 MG/L	125 MG/L	1000MG/L	2000MG/L
Islets, Pancreatic Carcinoma TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	2/50 (4%) 2/43.72 4.6% 2/36 (6%) 729 (T)	1/49 (2%) 1/43.20 2.3% 1/27 (4%) 729 (T)	0/49 (0%) 0/43.46 0.0% 0/31 (0%)	2/50 (4%) 2/43.55 4.6% 1/28 (4%) 701	1/50 (2%) 1/44.75 2.2% 1/37 (3%) 729 (T)	1/49 (2%) 1/43.02 2.3% 1/36 (3%) 729 (T)	0/49 (0%) 0/42.24 0.0% 0/32 (0%)	1/50 (2%) 1/47.00 2.1% 1/41 (2%) 729 (T)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.523 P=0.564 P=0.564 P=0.564 P=0.546 P=0.565 P=0.413	P=0.600N P=0.504N P=0.503N P=0.513N P=0.600N P=0.508N (e)	P=0.272N P=0.238N P=0.239N P=0.241N (e) P=0.253N (e)	P=0.614 P=0.693 P=0.693N P=0.685 P=0.671 P=0.691N (e)	P=0.553N P=0.577N P=0.577N P=0.578N P=0.553N P=0.579N P=0.522N	P=0.756 P=0.752 P=0.753 P=0.751 P=0.756 P=0.747 (e)	P=0.529N P=0.511N P=0.508N P=0.517N (e) P=0.505N (e)	P=0.739N P=0.750N P=0.754N P=0.746N P=0.739N P=0.753N (e)

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Statistical Analysis of Primary Tumors in Rats(FISCHER 344) WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 05/27/03

=======================================			Sacrifice at	105 weeks	.=======		==========	================
			Males				emales	
Dose	0 MG/L	125 MG/L	1000MG/L	2000MG/L	0 MG/L	125 MG/L	1000MG/L	2000MG/L
=======================================	======================================		========	=========	 -========	=========	======= = ============================	***********
Islets, Pancreatic Carcinoma or Ade	noma							
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	5/50 (10%) 5/43.72 11.4% 5/36 (14%) 729 (T)	5/49 (10%) 5/43.59 11.5% 3/27 (11%) 663	3/49 (6%) 3/43.52 6.9% 2/31 (7%) 714	7/50 (14%) 7/43.73 16.0% 5/28 (18%) 681	3/50 (6%) 3/44.75 6.7% 3/37 (8%) 729 (T)	2/49 (4%) 2/43.02 4.7% 2/36 (6%) 729 (T)	0/49 (0%) 0/42.24 0.0% 0/32 (0%)	1/50 (2%) 1/47.00 2.1% 1/41 (2%) 729 (T)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.259 P=0.331 P=0.333 P=0.325 P=0.311 P=0.335 P=0.296	P=0.472 P=0.629 P=0.629 P=0.618 P=0.597 P=0.617 (e)	P=0.436N P=0.358N P=0.361N P=0.363N P=0.407N P=0.369N (e)	P=0.234 P=0.379 P=0.382 P=0.365 P=0.324 P=0.380 (e)	P=0.144N P=0.153N P=0.154N P=0.152N P=0.144N P=0.157N P=0.101N	P=0.513N P=0.518N P=0.516N P=0.519N P=0.513N P=0.510N (e)	P=0.147N P=0.129N P=0.126N P=0.135N (e) P=0.125N (e)	P=0.269N P=0.288N P=0.294N P=0.282N P=0.269N P=0.309N (e)
			Males			F	'emales	
Dose	0 MG/L	125 MG/L	1000MG/L	2000MG/L	0 MG/L	125 MG/L	1000MG/L	2000MG/L
	=======================================		=======================================	=========	==========	=========	==========	=======================================
Liver Hepatocellular A	denoma							
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/43.72 0.0% 0/36 (0%)	3/50 (6%) 3/43.80 6.9% 3/27 (11%) 729 (T)	0/48 (0%) 0/42.88 0.0% 0/31 (0%)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	0/50 (0%) 0/44.75 0.0% 0/37 (0%)	0/50 (0%) 0/43.69 0.0% 0/36 (0%)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.161N P=0.141N P=0.140N P=0.146N (e) P=0.146N P=0.164N	P=0.075 P=0.119 P=0.120 P=0.113 P=0.075 P=0.121 (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)

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Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

_======================================		Terminal	Sacrifice at	105 weeks				
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000 MG /L
Lung Alveolar/Bronchi			======================================				~==== ===	
TUMOR RATES		- n = =			- 			
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	1/50 (2%) 1/43.72 2.3% 1/36 (3%) 729 (T)	1/50 (2%) 1/43.80 2.3% 1/27 (4%) 729 (T)	2/50 (4%) 2/43.73 4.6% 2/31 (7%) 729 (T)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	1/50 (2%) 1/44.75 2.2% 1/37 (3%) 729 (T)	1/50 (2%) 1/43.69 2.3% 1/36 (3%) 729 (T)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.414N P=0.379N P=0.378N P=0.383N P=0.414N P=0.376N P=0.273N	P=0.697 P=0.760N P=0.758N P=0.754 P=0.697 P=0.753N (e)	P=0.448 P=0.500 P=0.501 P=0.495 P=0.448 P=0.500	P=0.550N P=0.501N P=0.500N P=0.506N (e) P=0.500N (e)	P=0.195N P=0.204N P=0.204N P=0.205N P=0.195N P=0.203N P=0.237N	P=0.756 P=0.755 P=0.757 P=0.754 P=0.756 P=0.753N (e)	P=0.523N P=0.507N P=0.504N P=0.512N (e) P=0.500N (e)	P=0.480N P=0.490N P=0.494N P=0.487N (e) P=0.500N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000 MG /L	0 MG/L	125 MG/L	emales 1000MG/L	2000MG/L
Lung Alveolar/Bronchic	plar Carcinoma							
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	3/50 (6%) 3/43.72 6.9% 3/36 (8%) 729 (T)	2/50 (4%) 2/43.80 4.6% 2/27 (7%) 729 (T)	0/50 (0%) 0/43.73 0.0% 0/31 (0%)	1/50 (2%) 1/43.44 2.3% 1/28 (4%) 729 (T)	1/50 (2%) 1/44.75 2.2% 1/37 (3%) 729 (T)	0/50 (0%) 0/43.69 0.0% 0/36 (0%)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
STATISTICAL TESTS LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.186N P=0.159N P=0.159N P=0.158N P=0.186N P=0.158N P=0.108N	P=0.631N P=0.499N P=0.496N P=0.513N P=0.631N P=0.500N (e)	P=0.148N P=0.118N P=0.118N P=0.121N (e) P=0.121N (e)	P=0.398N P=0.307N P=0.305N P=0.316N P=0.398N P=0.309N (e)	P=0.352N P=0.365N P=0.364N P=0.366N P=0.352N P=0.363N P=0.111N	P=0.505N P=0.505N P=0.503N P=0.506N (e) P=0.500N (e)	P=0.523N P=0.507N P=0.504N P=0.512N (e) P=0.500N (e)	P=0.480N P=0.490N P=0.494N P=0.487N (e) P=0.500N (e)

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Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 05/27/03

	=======================================	=========	=========	===========		=========		=======================================
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000 M G/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
Lung Alveolar/Bronchio Adenoma								
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	4/50 (8%) 4/43.72 9.2% 4/36 (11%) 729 (T)	3/50 (6%) 3/43.80 6.9% 3/27 (11%) 729 (T)	2/50 (4%) 2/43.73 4.6% 2/31 (7%) 729 (T)	1/50 (2%) 1/43.44 2.3% 1/28 (4%) 729 (T)	2/50 (4%) 2/44.75 4.5% 2/37 (5%) 729 (T)	1/50 (2%) 1/43.69 2.3% 1/36 (3%) 729 (T)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.147N P=0.119N P=0.119N P=0.119N P=0.147N P=0.117N P=0.131N	P=0.656 P=0.499N P=0.495N P=0.516N P=0.656 P=0.500N (e)	P=0.407N P=0.337N P=0.336N P=0.343N P=0.407N P=0.339N (e)	P=0.261N P=0.180N P=0.178N P=0.187N P=0.261N P=0.181N (e)	P=0.101N P=0.104N P=0.105N P=0.104N P=0.101N P=0.106N P=0.067N	P=0.510N P=0.508N P=0.506N P=0.511N P=0.510N P=0.500N (e)	P=0.264N P=0.245N P=0.241N P=0.251N (e) P=0.247N (e)	P=0.216N P=0.226N P=0.230N P=0.223N (e) P=0.247N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
Mammary Gland Adenoma		=======================================						
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/43.72 0.0% 0/36 (0%)	0/50 (0%) 0/43.80 0.0% 0/27 (0%)	0/50 (0%) 0/43.73 0.0% 0/31 (0%)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	3/50 (6%) 3/44.75 6.7% 3/37 (8%) 729 (T)	0/50 (0%) 0/43.69 0.0% 0/36 (0%)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	2/50 (4%) 2/47.00 4.3% 2/41 (5%) 729 (T)
STATISTICAL TESTS								
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.594N P=0.609 P=0.603 P=0.614 P=0.594N P=0.591 P=0.094N	P=0.126N P=0.123N P=0.122N P=0.124N (e) P=0.121N (e)	P=0.142N P=0.125N P=0.122N P=0.130N (e) P=0.121N (e)	P=0.453N P=0.478N P=0.486N P=0.470N P=0.453N P=0.500N (e)

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Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

=======================================		Terminar :=========	sacrifice at	105 Weeks	-	*****		
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000 M G/L	0 MG/L	125 MG/L	emales 1000MG/L	2000 M G/L
Mammary Gland Carcinoma		:====== =				=======================================		= = = = = = = = = = = = = = = = = = = =
TUMOR RATES	#	#	#	#	-	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/43.72 0.0% 0/36 (0%)	1/50 (2%) 1/43.81 2.3% 0/27 (0%) 726	1/50 (2%) 1/43.73 2.3% 1/31 (3%) 729 (T)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	3/50 (6%) 3/46.46 6.5% 0/37 (0%) 462	1/50 (2%) 1/44.28 2.3% 0/36 (0%) 541	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	2/50 (4%) 2/47.00 4.3% 2/41 (5%) 729 (T)
STATISTICAL TESTS								
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.553N P=0.523N P=0.522N P=0.530N P=0.545N P=0.522N P=0.400	P=0.450 P=0.500 P=0.502 P=0.494 P=0.472 P=0.500	P=0.470 P=0.500 P=0.500 P=0.497 P=0.470 P=0.500	(e) (e) (e) (e) (e) (e)	P=0.460N P=0.483N P=0.484N P=0.484N P=0.587 P=0.487N P=0.191N	P=0.320N P=0.323N P=0.317N P=0.329N P=0.183N P=0.309N (e)	P=0.129N P=0.132N P=0.126N P=0.141N P=0.091N P=0.121N (e)	P=0.470N P=0.495N P=0.496N P=0.494N P=0.685N P=0.500N (e)
) Oose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	2000MG/L
Mammary Gland Carcinoma or Aden TUMOR RATES	oma #	 #	- 	#		#	#	#
POUVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) FERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/43.72 0.0% 0/36 (0%)	1/50 (2%) 1/43.81 2.3% 0/27 (0%) 726	1/50 (2%) 1/43.73 2.3% 1/31 (3%) 729 (T)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	6/50 (12%) 6/46.46 12.9% 3/37 (8%) 462	1/50 (2%) 1/44.28 2.3% 0/36 (0%) 541	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	4/50 (8%) 4/47.00 8.5% 4/41 (10%) 729 (T)
STATISTICAL TESTS LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS DRDER RESTRICTED	P=0.553N P=0.523N P=0.522N P=0.530N P=0.545N P=0.522N P=0.400	P=0.450 P=0.500 P=0.502 P=0.494 P=0.472 P=0.500 (e)	P=0.470 P=0.500 P=0.500 P=0.497 P=0.470 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.461N P=0.494N P=0.497N P=0.494N P=0.576N P=0.505N P=0.038N*	P=0.069N P=0.064N P=0.061N P=0.067N P=0.037N* P=0.056N (e)	P=0.024N* P=0.019N* P=0.018N* P=0.022N* P=0.013N* P=0.013N* (e)	P=0.321N P=0.362N P=0.365N P=0.362N P=0.452N P=0.370N (e)

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Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM

======================================	=======================================	=========	==========		:=====================================	=========		===========
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000 M G/L	0 MG/L	125 MG/L	emales 1000MG/L	2000MG/L
Mammary Gland Fibroadenoma	========			========	•	=======================================		20000
TUMOR RATES	#	#	#	#	 #	#	#	#
POLY-3 RATE (b) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	2/50 (4%) 2/43.72 4.6% 2/36 (6%) 729 (T)	1/50 (2%) 1/43.80 2.3% 1/27 (4%) 729 (T)	4/50 (8%) 4/44.26 9.0% 3/31 (10%) 566	4/50 (8%) 4/43.48 9.2% 3/28 (11%) 718	33/50 (66%) 33/47.28 69.8% 26/37 (70%) 423	29/50 (58%) 29/45.65 63.5% 25/36 (69%) 365	31/50 (62%) 31/45.14 68.7% 24/33 (73%) 547	33/50 (66%) 33/47.81 69.0% 29/41 (71%) 636
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.090 P=0.118 P=0.119 P=0.116 P=0.115 P=0.121 P=0.210	P=0.600N P=0.499N P=0.497N P=0.510N P=0.600N P=0.500N (e)	P=0.287 P=0.343 P=0.341 P=0.338 P=0.337 P=0.339 (e)	P=0.234 P=0.334 P=0.338 P=0.323 P=0.261 P=0.339 (e)	P=0.429N P=0.437 P=0.414 P=0.462 P=0.531 P=0.379 P=0.599N	P=0.335N P=0.333N P=0.304N P=0.376N P=0.300N P=0.268N (e)	P=0.476 P=0.544N P=0.487N P=0.567 P=0.483N P=0.418N (e)	P=0.335N P=0.557N P=0.566N P=0.551N P=0.469N P=0.583N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 125 M G/L	emales 1000MG/L	2000MG/L
Mammary Gland Fibroma, Fibroade TUMOR RATESOVERALL (a) POLY-3 RATE (b)	2/50 (4%) 2/43.72 4.6% 2/36 (6%)	# 1/50 (2%) 1/43.80 2.3% 1/27 (4%)	# 4/50 (8%) 4/44.26 9.0% 3/31 (10%)	# 4/50 (8%) 4/43.48 9.2% 3/28 (11%)	# 35/50 (70%) 35/47.28 74.0% 28/37 (76%)	# 29/50 (58%) 29/45.65 63.5% 25/36 (69%)	# 31/50 (62%) 31/45.14 68.7% 24/33 (73%)	# 34/50 (68% 34/47.81 71.1% 30/41 (73%
TERMINAL (d)		729 (T)	566	718	423	365	547	636
POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	729 (T)	723 (1)						

03 EXPERIMENT: 96010 TEST: 03 Page 10
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

l=====================================	========		Sacrifice at					
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	emales 1000MG/L	2000 M G/L
Mammary Gland Fibroma, Fibroad				======================================	= = = = = = = = = = = = = = = = = = =		- * = = : = = = = :	
TUMOR RATES	#	#	#		 #	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	2/50 (4%) 2/43.72 4.6% 2/36 (6%) 729 (T)	2/50 (4%) 2/43.81 4.6% 1/27 (4%) 726	5/50 (10%) 5/44.26 11.3% 4/31 (13%) 566	4/50 (8%) 4/43.48 9.2% 3/28 (11%) 718	37/50 (74%) 37/48.68 76.0% 28/37 (76%) 423	30/50 (60%) 30/46.24 64.9% 25/36 (69%) 365	31/50 (62%) 31/45.14 68.7% 24/33 (73%) 547	35/50 (70%) 35/47.81 73.2% 31/41 (76%) 636
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.134 P=0.173 P=0.176 P=0.168 P=0.168 P=0.177 P=0.248	P=0.590 P=0.693N P=0.690N P=0.684 P=0.621 P=0.691N (e)	P=0.172 P=0.221 P=0.220 P=0.216 P=0.216 P=0.218 (e)	P=0.234 P=0.334 P=0.338 P=0.323 P=0.261 P=0.339 (e)	P=0.334N P=0.466 P=0.470 P=0.460 P=0.474N P=0.474 P=0.338N	P=0.169N P=0.161N P=0.134N P=0.198N P=0.109N P=0.101N (e)	P=0.386N P=0.280N P=0.214N P=0.378N P=0.162N P=0.142N (e)	P=0.198N P=0.466N P=0.445N P=0.491N P=0.350N P=0.412N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F∈ 125 MG/L	emales 1000MG/L	2000MG/L
Pancreas Adenoma TUMOR RATES OVERALL (a) POLY-3 RATE (b)	0/49 (0%) 0/43.39	3/49 (6%) 3/43.20	1/49 (2%) 1/43.46	0/50 (0%) 0/43.44	2/50 (4%) 2/44.75	0/49 (0%) 0/43.02	0/49 (0%)	0/49 (0%) 0/46.34
POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0.0% 0/36 (0%)	6.9% 3/27 (11%) 729 (T)	2.3% 1/31 (3%) 729 (T)	0.0% 0/28 (0%)	4.5% 2/37 (5%) 729 (T)	0.0% 0/36 (0%)	0.0% 0/32 (0%)	0.0% 0/41 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.243N P=0.214N P=0.211N P=0.224N (e) P=0.212N P=0.218N	P=0.075 P=0.118 P=0.120 P=0.112 P=0.075 P=0.121 (e)	P=0.470 P=0.500 P=0.501 P=0.497 P=0.470 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.168N P=0.172N P=0.172N P=0.172N P=0.168N P=0.175N P=0.027N*	P=0.244N P=0.246N P=0.245N P=0.246N (e) P=0.253N (e)	P=0.271N P=0.250N P=0.246N P=0.257N (e) P=0.253N (e)	P=0.216N P=0.229N P=0.234N P=0.225N (e) P=0.253N (e)

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Statistical Analysis of Primary Tumors in Rats(FISCHER 344) WATER DISINFECTION BYPRODUCTS (SODIUM

======================================	===========		Sacrifice at 1		======================================	========	==========	==========
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	males 1000MG/L	2000MG/L
Pancreas Carcinoma or Aden		======	=======================================					
TUMOR RATES				_ _				
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/49 (0%) 0/43.39 0.0% 0/36 (0%)	4/49 (8%) 4/43.20 9.3% 4/27 (15%) 729 (T)	1/49 (2%) 1/43.46 2.3% 1/31 (3%) 729 (T)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	2/50 (4%) 2/44.75 4.5% 2/37 (5%) 729 (T)	0/49 (0%) 0/43.02 0.0% 0/36 (0%)	0/49 (0%) 0/42.24 0.0% 0/32 (0%)	0/49 (0%) 0/46.34 0.0% 0/41 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.164N P=0.138N P=0.135N P=0.146N (e) P=0.138N P=0.148N	P=0.032 * P=0.059 P=0.061 P=0.055 P=0.032 * P=0.059 (e)	P=0.470 P=0.500 P=0.501 P=0.497 P=0.470 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.168N P=0.172N P=0.172N P=0.172N P=0.172N P=0.168N P=0.175N P=0.027N*	P=0.244N P=0.246N P=0.245N P=0.246N (e) P=0.253N (e)	P=0.271N P=0.250N P=0.246N P=0.257N (e) P=0.253N (e)	P=0.216N P=0.229N P=0.234N P=0.225N (e) P=0.253N (e)
			Males				emales	
Dose	0 MG/L	125 MG/L	1000MG/L	2000MG/L	0 MG/L	125 MG/L	1000MG/L	2000MG/L
Pituitary Gland: Pars Adenoma TUMOR RATES	Distalis or Uns							
	16/40 (339)	15/50 (30%)	20/49 (41%)	15/50 (30%)	23/49 (47%)	18/49 (37%)	17/50 (34%)	25/50 (50%)
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	16/43.05 37.2%	15/44.42 33.8% 11/27 (41%) 652	20/45.67 43.8% 12/31 (39%) 561	15/44.68 33.6%	23/46.10 49.9% 16/36 (44%) 511	18/43.93 41.0% 15/36 (42%) 626	17/46.64 36.5%	25/48.71 51.38 20/41 (49%) 475
STATISTICAL TESTS								
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.375 P=0.516N P=0.522N P=0.510N P=0.528 P=0.527N P=0.507N	P=0.351 P=0.457N P=0.441N P=0.506N P=0.528N P=0.445N (e)	P=0.166 P=0.337 P=0.318 P=0.344 P=0.293 P=0.290 (e)	P=0.423 P=0.449N P=0.442N P=0.470N P=0.484N P=0.445N (e)	P=0.430 P=0.367 P=0.334 P=0.395 P=0.296 P=0.277 P=0.297	P=0.233N P=0.261N P=0.240N P=0.284N P=0.215N P=0.206N (e)	P=0.260N P=0.134N P=0.132N P=0.141N P=0.127N P=0.134N (e)	P=0.516N P=0.526 P=0.503 P=0.543 P=0.461 P=0.459 (e)

03 EXPERIMENT: 96010 TEST: 03 Page 12
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

==============	=======================================		Sacrifice at 1	105 weeks	. 	=======================================		
Dose	0 MG/L	125 M G/L	Males 1000MG/L	2000 M G/L	0 MG/L		emales 1000MG/L	2000 M G/L
Pituitary Gland: Pars Carcinoma						=======================================		
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/48 (0%) 0/42.47 0.0% 0/36 (0%)	0/50 (0%) 0/43.80 0.0% 0/27 (0%)	0/49 (0%) 0/43.46 0.0% 0/31 (0%)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	1/49 (2%) 1/44.06 2.3% 0/36 (0%) 644	3/49 (6%) 3/43.88 6.8% 1/36 (3%)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.074N P=0.074N P=0.074N P=0.074N P=0.082N P=0.076N P=0.104N	P=0.299 P=0.304 P=0.303 P=0.305 P=0.315 P=0.309	P=0.520N P=0.504N P=0.500N P=0.510N P=0.488N P=0.495N (e)	P=0.482N P=0.487N P=0.490N P=0.485N P=0.550N P=0.495N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F€ 125 MG/L	emales 1000MG/L	2000MG/L
Pituitary Gland: Pars Carcinoma or Ade	Distalis or Uns				·			
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	16/43.05 37.2%	15/50 (30%) 15/44.42 33.8% 11/27 (41%) 652	20/49 (41%) 20/45.67 43.8% 12/31 (39%) 561	15/50 (30%) 15/44.68 33.6% 8/28 (29%) 651	24/49 (49%) 24/46.41 51.7% 16/36 (44%) 511	21/49 (43%) 21/44.57 47.1% 16/36 (44%) 626	17/50 (34%) 17/46.64 36.5% 9/33 (27%) 511	25/50 (50%) 25/48.71 51.3% 20/41 (49%) 475
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.375 P=0.516N P=0.522N P=0.510N P=0.528 P=0.527N P=0.507N	P=0.351 P=0.457N P=0.441N P=0.506N P=0.528N P=0.445N (e)	P=0.166 P=0.337 P=0.318 P=0.344 P=0.293 P=0.290 (e)	P=0.423 P=0.449N P=0.442N P=0.470N P=0.484N P=0.445N (e)	P=0.452N P=0.527N P=0.521 P=0.515N P=0.477 P=0.463 P=0.355N	P=0.373N P=0.409N P=0.386N P=0.430N P=0.355N P=0.343N (e)	P=0.212N P=0.099N P=0.095N P=0.109N P=0.089N P=0.095N (e)	P=0.443N P=0.566N P=0.578 P=0.560N P=0.533 P=0.540 (e)

Date: 05/27/03 EXPERIMENT: 96010 TEST: 03 Page 13
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) WATER DISINFECTION BYPRODUCTS (SODIUM

======================================	e=========	Terminal	Sacrifice at	105 weeks	=========	:==== == ==	=========	========
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
Skin Basal Cell Carcin		=======================================	=======================================	= =345		• ==== ====	=========	
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/43.72 0.0% 0/36 (0%)	2/50 (4%) 2/43.80 4.6% 2/27 (7%) 729 (T)	0/50 (0%) 0/43.73 0.0% 0/31 (0%)	2/50 (4%) 2/43.44 4.6% 2/28 (7%) 729 (T)	1/50 (2%) 1/44.75 2.2% 1/37 (3%) 729 (T)	0/50 (0%) 0/43.69 0.0% 0/36 (0%)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.307 P=0.345 P=0.347 P=0.338 (e) P=0.347 P=0.115	P=0.177 P=0.237 P=0.239 P=0.230 P=0.177 P=0.247 (e)	(e) (e) (e) (e) (e) (e) (e)	P=0.185 P=0.236 P=0.237 P=0.230 P=0.185 P=0.247 (e)	P=0.352N P=0.365N P=0.364N P=0.366N P=0.352N P=0.363N P=0.111N	P=0.505N P=0.505N P=0.503N P=0.506N (e) P=0.500N (e)	P=0.523N P=0.507N P=0.504N P=0.512N (e) P=0.500N (e)	P=0.480N P=0.490N P=0.494N P=0.487N (e) P=0.500N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
Skin Basal Cell Carcir Tumor (benign, ma TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	noma, Basal Cel	l Adenoma, B	asosquamous	# 2/50 (4%) 2/43.44 4.6% 2/28 (7%) 729 (T)	# 3/50 (6%) 3/44.75 6.7% 3/37 (8%) 729 (T)	# 0/50 (0%) 0/43.69 0.0% 0/36 (0%)	0/43.24 0.0%	# 0/50 (0%) 0/47.00 0.0% 0/41 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS DRDER RESTRICTED	P=0.489 P=0.533 P=0.535 P=0.528 P=0.489 P=0.535 P=0.410	P=0.400 P=0.501 P=0.503 P=0.490 P=0.400 P=0.500 (e)	P=0.530N P=0.500N P=0.500N P=0.503N (e) P=0.500N (e)	P=0.412 P=0.498 P=0.500 P=0.489 P=0.412 P=0.500	P=0.086N P=0.084N P=0.085N P=0.085N P=0.083N P=0.086N P=0.091N P=0.006N**	P=0.126N P=0.123N P=0.122N P=0.124N (e) P=0.121N (e)	P=0.142N P=0.125N P=0.122N P=0.130N (e) P=0.121N (e)	P=0.104N P=0.110N P=0.113N P=0.107N (e) P=0.121N (e)

Date: 05/27/03 EXPERIMENT: 96010 TEST: 03 Page 14
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM

Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000 MG /L
Skin Basal or Sq. Cell (M or B), Basal C	Carcinoma, Ca	rcinoma, Basos	sq. Tumor				om	
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	5/50 (10%) 5/44.15 11.3% 3/36 (8%) 636	4/50 (8%) 4/43.99 9.1% 2/27 (7%) 695	1/50 (2%) 1/43.73 2.3% 1/31 (3%) 729 (T)	3/50 (6%) 3/43.48 6.9% 2/28 (7%) 718	3/50 (6%) 3/44.75 6.7% 3/37 (8%) 729 (T)	0/50 (0%) 0/43.69 0.0% 0/36 (0%)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	1/50 (2%) 1/47.34 2.1% 0/41 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS DRDER RESTRICTED	P=0.270N P=0.224N P=0.223N P=0.227N P=0.227N P=0.220N P=0.177N	P=0.624N P=0.502N P=0.496N P=0.524N P=0.507N P=0.500N (e)	P=0.137N P=0.103N P=0.102N P=0.108N P=0.103N P=0.102N (e)	P=0.470N P=0.364N P=0.358N P=0.381N P=0.367N P=0.357N (e)	P=0.322N P=0.337N P=0.340N P=0.335N P=0.338N P=0.347N P=0.033N*	P=0.126N P=0.123N P=0.122N P=0.124N (e) P=0.121N (e)	P=0.142N P=0.125N P=0.122N P=0.130N (e) P=0.121N (e)	P=0.269N P=0.285N P=0.293N P=0.278N P=0.300N P=0.309N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000 M G/L
Skin Fibroma			:=====		*======================================		***************************************	=== ====
TUMOR RATES	#	#	#	#	 #	#	#	#
DVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) PERMINAL (d) FIRST INCIDENCE	9/50 (18%) 9/43.97 20.5% 7/36 (19%) 695	10/50 (20%) 10/45.25 22.1% 6/27 (22%) 555	5/50 (10%) 5/44.26 11.3% 3/31 (10%) 607	8/50 (16%) 8/44.06 18.2% 5/28 (18%) 651	4/50 (8%) 4/45.12 8.9% 3/37 (8%) 623	1/50 (2%) 1/43.75 2.3% 0/36 (0%) 714	1/50 (2%) 1/43.24 2.3% 1/33 (3%) 729 (T)	1/50 (2%) 1/47.00 2.1% 1/41 (2%) 729 (T)
STATISTICAL TESTS								
POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS	P=0.377N P=0.300N P=0.297N P=0.306N P=0.298N P=0.294N	P=0.313 P=0.528 P=0.524 P=0.513 P=0.504 P=0.500	P=0.274N P=0.187N P=0.189N P=0.192N P=0.196N P=0.194N	P=0.539 P=0.498N P=0.495N P=0.514N P=0.524N P=0.500N	P=0.173N P=0.175N P=0.180N P=0.172N P=0.176N P=0.188N	P=0.190N P=0.188N P=0.185N P=0.191N P=0.184N P=0.181N	P=0.213N P=0.191N P=0.186N P=0.202N P=0.188N P=0.181N	P=0.152N P=0.167N P=0.171N P=0.163N P=0.173N P=0.181N

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Statistical Analysis of Primary Tumors in Rats(FISCHER 344)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344)

WATER DISINFECTION BYPRODUCTS (SODIUM Date: 05/27/03

 ===±±±±== = ===========================			Sacrifice at :		=========	========	=======================================	**============
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
Skin Fibroma, Fibrosan or Fibrous Histic		Мухота, Мухо	sarcoma,	========	=======	= = = = = = = = = = = = = = = = = = = =	=======	=========
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	10/50 (20%) 10/44.83 22.3% 7/36 (19%) 381	12/50 (24%) 12/45.53 26.4% 7/27 (26%) 555	6/50 (12%) 6/45.23 13.3% 3/31 (10%) 209	8/50 (16%) 8/44.06 18.2% 5/28 (18%) 651	4/50 (8%) 4/45.12 8.9% 3/37 (8%) 623	2/50 (4%) 2/43.76 4.6% 0/36 (0%) 714	1/50 (2%) 1/43.24 2.3% 1/33 (3%) 729 (T)	2/50 (4%) 2/47.23 4.2% 1/41 (2%) 670
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.242N P=0.180N P=0.176N P=0.188N P=0.170N P=0.172N P=0.243N	P=0.238 P=0.420 P=0.419 P=0.404 P=0.401 P=0.405 (e)	P=0.289N P=0.198N P=0.199N P=0.205N P=0.205N P=0.207N (e)	P=0.562N P=0.412N P=0.404N P=0.431N P=0.397N P=0.398N (e)	P=0.267N P=0.277N P=0.283N P=0.273N P=0.277N P=0.293N P=0.168N	P=0.351N P=0.351N P=0.347N P=0.356N P=0.346N P=0.339N (e)	P=0.213N P=0.191N P=0.186N P=0.202N P=0.188N P=0.181N (e)	P=0.294N P=0.316N P=0.324N P=0.310N P=0.339N P=0.339N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 M G/L	Females 1000MG/L	2000MG/L
Skin Fibrosarcoma TUMOR RATES		#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	1/50 (2%) 1/44.58 2.2% 0/36 (0%) 381	2/50 (4%) 2/44.08 4.5% 1/27 (4%) 652	0/50 (0%) 0/43.73 0.0% 0/31 (0%)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	0/50 (0%) 0/44.75 0.0% 0/37 (0%)	1/50 (2%) 1/43.70 2.3% 0/36 (0%) 727	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.131N P=0.126N P=0.125N P=0.129N P=0.111N P=0.124N P=0.170N	P=0.470 P=0.496 P=0.500 P=0.486 P=0.334 P=0.500 (e)	P=0.504N P=0.504N P=0.502N P=0.508N P=0.358N P=0.500N (e)	P=0.500N P=0.505N P=0.502N P=0.511N (e) P=0.500N (e)	P=0.415N P=0.431N P=0.428N P=0.434N P=0.414N P=0.423N P=0.367N	P=0.495 P=0.495 P=0.497 P=0.494 P=0.492 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)

03 EXPERIMENT: 96010 TEST: 03 Page 16
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

==============	==========		Sacrifice at		=========			
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
Skin Fibrosarcoma, San						:22===== =	:==== :	=======================================
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	1/50 (2%) 1/44.58 2.2% 0/36 (0%) 381	2/50 (4%) 2/44.08 4.5% 1/27 (4%) 652	1/50 (2%) 1/44.71 2.2% 0/31 (0%) 209	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	0/50 (0%) 0/44.75 0.0% 0/37 (0%)	1/50 (2%) 1/43.70 2.3% 0/36 (0%) 727	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	1/50 (2%) 1/47.23 2.1% 0/41 (0%) 670
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.203N P=0.198N P=0.196N P=0.203N P=0.161N P=0.193N P=0.228N	P=0.470 P=0.496 P=0.500 P=0.486 P=0.334 P=0.500	P=0.758 P=0.760N P=0.759N P=0.758 (e) P=0.753N (e)	P=0.500N P=0.505N P=0.502N P=0.511N (e) P=0.500N (e)	P=0.498 P=0.489 P=0.485 P=0.494 P=0.480 P=0.478 P=0.261	P=0.495 P=0.495 P=0.497 P=0.494 P=0.492 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.519 P=0.511 P=0.507 P=0.515 P=0.471 P=0.500 (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	2000 M G/L
Skin Keratoacanthoma TUMOR RATES							#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	4/50 (8%) 4/44.15 9.1% 2/36 (6%) 636	2/50 (4%) 2/43.99 4.6% 0/27 (0%) 695	7 1/50 (2%) 1/43.73 2.3% 1/31 (3%) 729 (T)	* 1/50 (2%) 1/43.48 2.3% 0/28 (0%) 718	# 0/50 (0%) 0/44.75 0.0% 0/37 (0%)	# 0/50 (0%) 0/43.69 0.0% 0/36 (0%)	# 0/50 (0%) 0/43.24 0.0% 0/33 (0%)	# 1/50 (2%) 1/47.34 2.1% 0/41 (0%) 635
POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.156N P=0.132N P=0.132N P=0.133N P=0.132N P=0.130N P=0.098N	P=0.418N P=0.338N P=0.334N P=0.354N P=0.335N P=0.339N (e)	P=0.220N P=0.181N P=0.180N P=0.188N P=0.179N P=0.181N (e)	P=0.238N P=0.183N P=0.180N P=0.192N P=0.180N P=0.181N (e)	P=0.205 P=0.195 P=0.191 P=0.199 P=0.145 P=0.185 P=0.131	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.527 P=0.511 P=0.507 P=0.516 P=0.438 P=0.500 (e)

Date: 05/27/03 EXPERIMENT: 96010 TEST: 03 Page 17
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM
Terminal Sacrifice at 105 weeks

=======================================	=======================================		acrifice at 1		, === ===== ============================	=========	:======================================	.=========
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
Skin Trichoepithelioma		========	****** *	=======	=======================================			
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	1/50 (2%) 1/43.72 2.3% 1/36 (3%) 729 (T)	0/50 (0%) 0/43.80 0.0% 0/27 (0%)	0/50 (0%) 0/43.73 0.0% 0/31 (0%)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	2/50 (4%) 2/44.75 4.5% 2/37 (5%) 729 (T)	0/50 (0%) 0/43.69 0.0% 0/36 (0%)	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.381N P=0.363N P=0.365N P=0.357N P=0.381N P=0.363N P=0.121N	P=0.557N P=0.500N P=0.498N P=0.506N (e) P=0.500N (e)	P=0.530N P=0.500N P=0.500N P=0.503N (e) P=0.500N (e)	P=0.550N P=0.501N P=0.500N P=0.506N (e) P=0.500N (e)	P=0.167N P=0.169N P=0.170N P=0.169N P=0.167N P=0.173N P=0.026N*	P=0.244N P=0.242N P=0.241N P=0.244N (e) P=0.247N (e)	P=0.264N P=0.245N P=0.241N P=0.251N (e) P=0.247N (e)	P=0.216N P=0.226N P=0.230N P=0.223N (e) P=0.247N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
Testes Adenoma			~~~~~		·			
TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	45/50 (90%) 45/47.98 93.8% 34/36 (94%) 469	49/50 (98%) 49/49.46 99.1% 27/27 (100%) 542	44/50 (88%) 44/47.14 93.3% 30/31 (97%) 561	45/50 (90%) 45/48.49 92.8% 27/28 (96%) 443				
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.383 P=0.198N P=0.196N P=0.239N P=0.208N P=0.229N P=0.285N	P=0.018 * P=0.164 P=0.137 P=0.186 P=0.215 P=0.102 (e)	P=0.282 P=0.644N P=0.592N P=0.671 P=0.391N P=0.500N (e)	P=0.101 P=0.593N P=0.590N P=0.639N P=0.576N P=0.630N (e)		.========	=========	

03 EXPERIMENT: 96010 TEST: 03 Page 18
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

== ==================================			Sacrifice at		=======================================			
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	2000MG/L
Thyroid Gland: C-Cell Adenoma		==== ===	=======================================		**************************************			
TUMOR RATES					 -			·
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	9/47 (19%) 9/42.76 21.1% 7/36 (19%) 636	9/44 (20%) 9/40.47 22.2% 7/27 (26%) 619	6/43 (14%) 6/40.05 15.0% 4/31 (13%) 660	9/47 (19%) 9/41.77 21.6% 8/28 (29%) 718	12/47 (26%) 12/42.92 28.0% 10/36 (28%) 661	9/47 (19%) 9/42.52 21.2% 6/36 (17%) 644	11/43 (26%) 11/38.90 28.3% 11/32 (34%) 729 (T)	9/46 (20%) 9/43.71 20.6% 9/40 (23%) 729 (T)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.506 P=0.485N P=0.477N P=0.503N P=0.486N P=0.466N P=0.550N	P=0.388 P=0.553 P=0.554 P=0.539 P=0.547 P=0.542 (e)	P=0.383N P=0.334N P=0.343N P=0.329N P=0.336N P=0.354N (e)	P=0.395 P=0.583 P=0.595 P=0.553 P=0.548 P=0.603N (e)	P=0.293N P=0.368N P=0.384N P=0.359N P=0.340N P=0.418N P=0.331N	P=0.326N P=0.317N P=0.317N P=0.312N P=0.324N P=0.311N (e)	P=0.563 P=0.585 P=0.591 P=0.568 P=0.557 P=0.593 (e)	P=0.223N P=0.292N P=0.306N P=0.281N P=0.265N P=0.330N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	2000MG/L
Thyroid Gland: C-Cell Carcinoma								
TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	2/47 (4%) 2/42.29 4.7% 2/36 (6%) 729 (T)	2/44 (5%) 2/39.82 5.0% 2/27 (7%) 729 (T)	0/43 (0%) 0/39.66 0.0% 0/31 (0%)	1/47 (2%) 1/41.73 2.4% 1/28 (4%) 729 (T)	1/47 (2%) 1/42.66 2.3% 1/36 (3%) 729 (T)	3/47 (6%) 3/42.30 7.1% 2/36 (6%) 626	1/43 (2%) 1/39.38 2.5% 0/32 (0%) 587	3/46 (7%) 3/43.71 6.9% 3/40 (8%) 729 (T)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.292N P=0.254N P=0.254N P=0.253N P=0.292N P=0.254N P=0.259N	P=0.588 P=0.673 P=0.674 P=0.666 P=0.588 P=0.666 (e)	P=0.272N P=0.251N P=0.254N P=0.250N (e) P=0.270N (e)	P=0.588N P=0.505N P=0.501N P=0.513N P=0.588N P=0.500N (e)	P=0.431 P=0.394 P=0.387 P=0.400 P=0.369 P=0.374 P=0.254	P=0.309 P=0.302 P=0.302 P=0.303 P=0.302 P=0.308 (e)	P=0.747 P=0.743 P=0.742 P=0.742 P=0.740 P=0.730 (e)	P=0.343 P=0.314 P=0.308 P=0.320 P=0.343 P=0.300 (e)

O3 EXPERIMENT: 96010 TEST: 03 Page 19
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 05/27/03

			Sacrifice at :	105 weeks		.====== = =====	.=======	: === =================================
Dose	0 M G/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L		emales 1000MG/L	2000MG/L
Thyroid Gland: C-Cell Carcinoma or Aden	.oma	=======================================		=========	=======================================			
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	11/47 (23%) 11/42.76 25.7% 9/36 (25%) 636	11/44 (25%) 11/40.47 27.2% 9/27 (33%) 619	6/43 (14%) 6/40.05 15.0% 4/31 (13%) 660	10/47 (21%) 10/41.77 23.9% 9/28 (32%) 718	13/47 (28%) 13/42.92 30.3% 11/36 (31%) 661	11/47 (23%) 11/42.89 25.7% 7/36 (19%) 626	12/43 (28%) 12/39.38 30.5% 11/32 (34%) 587	12/46 (26%) 12/43.71 27.5% 12/40 (30%) 729 (T)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.453N P=0.339N P=0.332N P=0.354N P=0.344N P=0.323N P=0.355N	P=0.342 P=0.539 P=0.540 P=0.523 P=0.527 P=0.526 (e)	P=0.221N P=0.174N P=0.182N P=0.169N P=0.175N P=0.191N (e)	P=0.461 P=0.524N P=0.509N P=0.559N P=0.577N P=0.500N (e)	P=0.423N P=0.526N P=0.541N P=0.521N P=0.500N P=0.506 P=0.598N	P=0.420N P=0.406N P=0.411N P=0.394N P=0.424N P=0.407N (e)	P=0.555 P=0.588 P=0.588 P=0.579 P=0.570 P=0.582 (e)	P=0.381N P=0.479N P=0.495N P=0.465N P=0.442N P=0.525N (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 125 MG/L	emales 1000MG/L	2000MG/L
Thyroid Gland: Follicu Adenoma TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	1/47 (2%) 1/42.38 2.4% 0/36 (0%) 705	0/44 (0%) 0/39.82 0.0% 0/27 (0%)	0/43 (0%) 0/39.66 0.0% 0/31 (0%)	2/47 (4%) 2/41.73 4.8% 2/28 (7%) 729 (T)	0/47 (0%) 0/42.66 0.0% 0/36 (0%)	0/47 (0%) 0/41.93 0.0% 0/36 (0%)	0/43 (0%) 0/38.90 0.0% 0/32 (0%)	2/46 (4%) 2/44.12 4.5% 0/40 (0%) 644
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION	P=0.176 P=0.206 P=0.206 P=0.205 P=0.196	P=0.529N P=0.512N P=0.512N P=0.517N P=0.512N P=0.516N	P=0.523N P=0.513N P=0.515N P=0.512N P=0.517N P=0.522N	P=0.422 P=0.495 P=0.498 P=0.485 P=0.478 P=0.500	P=0.052 P=0.044 * P=0.043 * P=0.045 * P=0.033 * P=0.042 *	(e) (e) (e) (e) (e)	(e) (e) (e) (e) (e)	P=0.255 P=0.245 P=0.240 P=0.250 P=0.200 P=0.242

Page 20 WATER DISINFECTION BYPRODUCTS (SODIUM Date: 05/27/03

03 EXPERIMENT: 96010 TEST: 03
Statistical Analysis of Primary Tumors in Rats(FISCHER 344)
Terminal Sacrifice at 105 weeks

=======================================			Sacrifice at					
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	20 00M G/L
Thyroid Gland: Folli								
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0/47 (0%) 0/42.29 0.0% 0/36 (0%)	0/44 (0%) 0/39.82 0.0% 0/27 (0%)	0/43 (0%) 0/39.66 0.0% 0/31 (0%)	4/47 (9%) 4/41.73 9.6% 4/28 (14%) 729 (T)	1/47 (2%) 1/42.66 2.3% 1/36 (3%) 729 (T)	0/47 (0%) 0/41.93 0.0% 0/36 (0%)	1/43 (2%) 1/39.01 2.6% 0/32 (0%) 703	2/46 (4%) 2/43.71 4.6% 2/40 (5%) 729 (T)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.002 ** P=0.003 ** P=0.003 ** P=0.003 ** (e) P=0.003 ** P=0.002 **	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.035 * P=0.058 P=0.059 P=0.055 P=0.035 * P=0.058 (e)	P=0.219 P=0.203 P=0.198 P=0.207 P=0.204 P=0.187 P=0.236	P=0.500N P=0.503N P=0.503N P=0.504N (e) P=0.500N (e)	P=0.732 P=0.741 P=0.741 P=0.739 P=0.742 P=0.730 (e)	P=0.537 P=0.508 P=0.503 P=0.514 P=0.537 P=0.492 (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	2000MG/L
Thyroid Gland: Follic Carcinoma or Ade					 			
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	1/47 (2%) 1/42.38 2.4% 0/36 (0%) 705	0/44 (0%) 0/39.82 0.0% 0/27 (0%)	0/43 (0%) 0/39.66 0.0% 0/31 (0%)	6/47 (13%) 6/41.73 14.4% 6/28 (21%) 729 (T)	1/47 (2%) 1/42.66 2.3% 1/36 (3%) 729 (T)	0/47 (0%) 0/41.93 0.0% 0/36 (0%)	1/43 (2%) 1/39.01 2.6% 0/32 (0%) 703	4/46 (9%) 4/44.12 9.1% 2/40 (5%) 644
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P<0.001 ** P=0.002 ** P=0.002 ** P=0.002 ** P<0.001 ** P=0.002 ** P<0.001 **	P=0.529N P=0.512N P=0.512N P=0.517N P=0.512N P=0.516N (e)	P=0.523N P=0.513N P=0.515N P=0.512N P=0.512N P=0.517N P=0.522N (e)	P=0.028 * P=0.052 P=0.055 P=0.048 * P=0.037 * P=0.055 (e)	P=0.034 * P=0.026 * P=0.024 * P=0.027 * P=0.024 * P=0.023 * P=0.029 *	P=0.500N P=0.503N P=0.503N P=0.504N (e) P=0.500N (e)	P=0.732 P=0.741 P=0.741 P=0.739 P=0.742 P=0.730 (e)	P=0.212 P=0.189 P=0.182 P=0.196 P=0.172 P=0.174 (e)

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Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Date: 05/27/03

======================================		Terminal	Sacrifice at		::::::::::::::::::::::::::::::::::::	========	=======================================	
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fo 125 MG/L	emales 1000MG/L	2000MG/L
Uterus Polyp Stromal	=====± ====	======================================	=======================================				====±±===±±==	
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE					9/50 (18%) 9/45.06 20.0% 8/37 (22%) 644	8/50 (16%) 8/44.03 18.2% 7/36 (19%) 636	9/50 (18%) 9/45.03 20.0% 4/33 (12%) 514	7/50 (14%) 7/47.57 14.7% 5/41 (12%) 635
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED					P=0.303N P=0.318N P=0.341N P=0.297N P=0.358N P=0.380N P=0.403N	P=0.524N P=0.521N P=0.514N P=0.527N P=0.527N P=0.500N (e)	P=0.518 P=0.603 P=0.602N P=0.596 P=0.599 P=0.602N (e)	P=0.312N P=0.347N P=0.365N P=0.331N P=0.357N P=0.393N (e)
			Males				emales	
Dose	0 MG/L	125 MG/L	1000MG/L	2000MG/L	0 MG/L	125 MG/L	1000MG/L	2000MG/L
Uterus Sarcoma Stromal TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	or Polyp Stron #	mal #	#	#	# 10/50 (20%) 10/45.06 22.2% 9/37 (24%) 644	# 8/50 (16%) 8/44.03 18.2% 7/36 (19%) 636	# 9/50 (18%) 9/45.03 20.0% 4/33 (12%) 514	# 7/50 (14%) 7/47.57 14.7% 5/41 (12%) 635
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED					P=0.245N P=0.255N P=0.277N P=0.236N P=0.291N P=0.314N P=0.280N	P=0.422N P=0.417N P=0.411N P=0.423N P=0.423N P=0.398N (e)	P=0.585N P=0.501N P=0.499N P=0.508N P=0.507N P=0.500N (e)	P=0.226N P=0.255N P=0.271N P=0.239N P=0.262N P=0.298N (e)

03 EXPERIMENT: 96010 TEST: 03 Page 22
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

=======================================	===========		Sacrifice at 1		==========			
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	2000MG/L
All Organs Histiocytic Sarco		= = = = = = = = = :						
TUMOR RATES	#	#	#	#	 #	 #	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	1/50 (2%) 1/44.39 2.3% 0/36 (0%) 503	1/50 (2%) 1/43.80 2.3% 1/27 (4%) 729 (T)	0/50 (0%) 0/43.73 0.0% 0/31 (0%)	0/50 (0%) 0/43.44 0.0% 0/28 (0%)	0/50 (0%) 0/44.75 0.0% 0/37 (0%)	2/50 (4%) 2/44.02 4.5% 1/36 (3%) 639	1/50 (2%) 1/43.24 2.3% 1/33 (3%) 729 (T)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.215N P=0.205N P=0.205N P=0.206N P=0.195N P=0.203N P=0.203N	P=0.736 P=0.758 P=0.760N P=0.750 P=0.710 P=0.753N (e)	P=0.496N P=0.503N P=0.502N P=0.507N P=0.450N P=0.500N (e)	P=0.500N P=0.504N P=0.502N P=0.510N P=0.597N P=0.500N (e)	P=0.316N P=0.324N P=0.328N P=0.321N P=0.330N P=0.333N P=0.309N	P=0.234 P=0.233 P=0.234 P=0.233 P=0.239 P=0.247 (e)	P=0.477 P=0.493 P=0.496 P=0.488 P=0.477 P=0.500 (e)	(e) (e) (e) (e) (e) (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 125 MG/L	emales 1000MG/L	2000MG/L
All Organs Leukemia: Lymphoc Undifferentiated TUMOR RATES	ytic, Monocytic	c, Mononuclear	e, or	#		#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	13/50 (26%) 13/45.60 28.5% 8/36 (22%) 545	21/50 (42%) 21/46.69 45.0% 8/27 (30%) 574	16/50 (32%) 16/45.67 35.0% 8/31 (26%) 561	23/50 (46%) 23/47.49 48.4% 10/28 (36%) 465	11/50 (22%) 11/45.75 24.0% 7/37 (19%) 594	9/50 (18%) 9/44.07 20.4% 8/36 (22%) 623	13/50 (26%) 13/44.89 29.0% 7/33 (21%) 615	9/50 (18%) 9/47.79 18.8% 6/41 (15%) 636
STATISTICAL TESTS								
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.084 P=0.111 P=0.106 P=0.111 P=0.098 P=0.097 P=0.031 *	P=0.037 * P=0.074 P=0.075 P=0.067 P=0.069 P=0.069 (e)	P=0.255 P=0.328 P=0.329 P=0.315 P=0.330 P=0.330	P=0.020 * P=0.036 * P=0.034 * P=0.035 * P=0.029 * P=0.030 * (e)	P=0.387N P=0.408N P=0.436N P=0.381N P=0.452N P=0.484N P=0.404N	P=0.430N P=0.437N P=0.424N P=0.452N P=0.421N P=0.402N (e)	P=0.318 P=0.385 P=0.395 P=0.370 P=0.396 P=0.408	P=0.325N P=0.359N P=0.375N P=0.345N P=0.399N P=0.402N (e)

/03 EXPERIMENT: 96010 TEST: 03 Page 23
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 05/27/03

=======================================	=======================================		Sacrifice at			===========	=======================================	=======================================
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
All Organs Mesothelioma: Ben	======== ign, Malignant	, NOS	===== =	=========		=======================================		
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0/50 (0%) 0/43.72 0.0% 0/36 (0%)	1/50 (2%) 1/44.06 2.3% 0/27 (0%) 660	2/50 (4%) 2/44.36 4.5% 0/31 (0%) 607	2/50 (4%) 2/43.44 4.6% 2/28 (7%) 729 (T)	0/50 (0%) 0/44.75 0.0% 0/37 (0%)	0/50 (0%) 0/43.69 0.0% 0/36 (0%)	1/50 (2%) 1/43.76 2.3% 0/33 (0%) 573	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.157 P=0.164 P=0.166 P=0.158 P=0.166 P=0.166	P=0.500 P=0.502 P=0.503 P=0.496 P=0.484 P=0.500 (e)	P=0.237 P=0.240 P=0.239 P=0.239 P=0.239 P=0.247 (e)	P=0.185 P=0.236 P=0.237 P=0.230 P=0.185 P=0.247 (e)	P=0.647 P=0.667 P=0.656 P=0.677 P=0.571 P=0.637 P=0.377	(e) (e) (e) (e) (e) (e)	P=0.504 P=0.496 P=0.498 P=0.491 P=0.513 P=0.500 (e)	(e) (e) (e) (e) (e) (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
All Organs Mesothelioma: Mal TUMOR RATES	ignant	#		#		 #	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0/50 (0%) 0/43.72 0.0% 0/36 (0%)	1/50 (2%) 1/44.06 2.3% 0/27 (0%) 660	2/50 (4%) 2/44.36 4.5% 0/31 (0%) 607	2/50 (4%) 2/43.44 4.6% 2/28 (7%) 729 (T)	0/50 (0%) 0/44.75 0.0% 0/37 (0%)	0/50 (0%) 0/43.69 0.0% 0/36 (0%)	1/50 (2%) 1/43.76 2.3% 0/33 (0%) 573	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.157 P=0.164 P=0.166 P=0.158 P=0.166 P=0.166 P=0.153	P=0.500 P=0.502 P=0.503 P=0.496 P=0.484 P=0.500	P=0.237 P=0.240 P=0.239 P=0.239 P=0.239 P=0.247 (e)	P=0.185 P=0.236 P=0.237 P=0.230 P=0.185 P=0.247 (e)	P=0.647 P=0.667 P=0.656 P=0.677 P=0.571 P=0.637 P=0.377	(e) (e) (e) (e) (e) (e)	P=0.504 P=0.496 P=0.498 P=0.491 P=0.513 P=0.500 (e)	(e) (e) (e) (e) (e) (e) (e)

EXPERIMENT: 96010 TEST: 03

Statistical Analysis of Primary Tumors in Rats(FISCHER 344)

Terminal Sacrifice at 105 weeks

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WATER DISINFECTION BYPRODUCTS (SODIUM Date: 05/27/03

=======================================	=======================================	Terminal	Sacrifice at	105 weeks	=======================================			===========
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000MG/L
All Organs Osteosarcoma			== = = = = = = = = = = = = = = = = = = =	***************************************				
TUMOR RATES	#	#	#	#	 #	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	3/50 (6%) 3/44.64 6.7% 0/36 (0%) 469	0/50 (0%) 0/43.80 0.0% 0/27 (0%)	0/50 (0%) 0/43.73 0.0% 0/31 (0%)	1/50 (2%) 1/43.44 2.3% 1/28 (4%) 729 (T)	0/50 (0%) 0/44.75 0.0% 0/37 (0%)	1/50 (2%) 1/44.23 2.3% 0/36 (0%) 563	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.377N P=0.344N P=0.347N P=0.336N P=0.344N P=0.347N P=0.041N*	P=0.141N P=0.122N P=0.119N P=0.129N P=0.150N P=0.121N (e)	P=0.138N P=0.122N P=0.121N P=0.127N P=0.115N P=0.121N (e)	P=0.365N P=0.315N P=0.309N P=0.327N P=0.315N P=0.309N (e)	P=0.415N P=0.429N P=0.427N P=0.432N P=0.509N P=0.423N P=0.370N	P=0.496 P=0.498 P=0.498 P=0.498 P=0.556 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)
Dose	0 MG/L	125 M G/L	Males 1000MG/L	2000MG/L	0 MG/L	125 MG/L	Females 1000MG/L	2000 M G/L
All Organs Osteosarcoma or O)steoma #	#	·				#	
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	3/50 (6%) 3/44.64 6.7% 0/36 (0%) 469	0/50 (0%) 0/43.80 0.0% 0/27 (0%)	0/50 (0%) 0/43.73 0.0% 0/31 (0%)	1/50 (2%) 1/43.44 2.3% 1/28 (4%) 729 (T)	0/50 (0%) 0/44.75 0.0% 0/37 (0%)	1/50 (2%) 1/44.23 2.3% 0/36 (0%) 563	0/50 (0%) 0/43.24 0.0% 0/33 (0%)	0/50 (0%) 0/47.00 0.0% 0/41 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.377N P=0.344N P=0.347N P=0.336N P=0.344N P=0.347N P=0.041N*	P=0.141N P=0.122N P=0.119N P=0.129N P=0.150N P=0.121N (e)	P=0.138N P=0.122N P=0.121N P=0.127N P=0.115N P=0.121N (e)	P=0.365N P=0.315N P=0.309N P=0.327N P=0.315N P=0.309N (e)	P=0.415N P=0.429N P=0.427N P=0.432N P=0.509N P=0.423N P=0.370N	P=0.496 P=0.498 P=0.498 P=0.498 P=0.556 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)

/03 EXPERIMENT: 96010 TEST: 03 Page 25
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 05/27/03

=======================================			acrifice at 10		=========		=========	=======================================
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 125 MG/L	males 1000MG/L	2000MG/L
All Organs Benign Tumors		=======================================						
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	48/50 (96%) 48/48.34 99.3% 36/36 (100%) 469	49/50 (98%) 49/49.46 99.1% 27/27 (100%) 542	47/50 (94%) 47/48.09 97.7% 31/31 (100%) 561	47/50 (94%) 47/48.82 96.3% 27/28 (96%) 443	46/50 (92%) 46/48.80 94.3% 35/37 (95%) 423	42/50 (84%) 42/47.38 88.7% 33/36 (92%) 365	44/50 (88%) 44/48.83 90.1% 29/33 (88%) 511	47/50 (94%) 47/49.41 95.1% 39/41 (95%) 475
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.337 P=0.128N P=0.162N P=0.126N P=0.210N P=0.249N P=0.135N	P=0.048 * P=0.955N P=0.826 P=1.000N P=0.355N P=0.500 (e)	P=0.270 P=0.608N P=0.580N P=0.707N P=0.240N P=0.500N (e)	P=0.129 P=0.346N P=0.384N P=0.386N P=0.346N P=0.500N (e)	P=0.408N P=0.319 P=0.261 P=0.402 P=0.313 P=0.202 P=0.334	P=0.360N P=0.248N P=0.208N P=0.323N P=0.216N P=0.178N (e)	P=0.408 P=0.342N P=0.356N P=0.326N P=0.396N P=0.370N (e)	P=0.303N P=0.609 P=0.567 P=0.650 P=0.641 P=0.500 (e)
Dose	0 MG/L	125 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 125 M G/L	males 1000MG/L	2000MG/L
All Organs Malignant Tumors		========	========		=======================================			
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	27/50 (54%) 27/48.71 55.4% 16/36 (44%) 381	32/50 (64%) 32/47.98 66.7% 14/27 (52%) 562	24/50 (48%) 24/48.25 49.7% 11/31 (36%) 209	32/50 (64%) 32/48.14 66.5% 16/28 (57%) 465	21/50 (42%) 21/47.47 44.2% 14/37 (38%) 462	22/50 (44%) 22/46.55 47.3% 14/36 (39%) 541	19/50 (38%) 19/47.04 40.4% 8/33 (24%) 547	22/50 (44%) 22/48.35 45.5% 17/41 (42%) 635
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.276 P=0.365 P=0.375 P=0.347 P=0.390 P=0.384 P=0.204	P=0.092 P=0.175 P=0.191 P=0.152 P=0.196 P=0.208 (e)	P=0.513N P=0.360N P=0.350N P=0.382N P=0.346N P=0.345N (e)	P=0.098 P=0.181 P=0.194 P=0.160 P=0.206 P=0.208 (e)	P=0.391N P=0.497N P=0.513N P=0.486N P=0.502 P=0.527 P=0.610N	P=0.461 P=0.465 P=0.472 P=0.471 P=0.503 P=0.500 (e)	P=0.551N P=0.432N P=0.428N P=0.435N P=0.392N P=0.419N (e)	P=0.499N P=0.533 P=0.520 P=0.547 P=0.480 P=0.500 (e)

Date: 05/27/03 EXPERIMENT: 96010 TEST: 03 Page 26
Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - WATER DISINFECTION BYPRODUCTS (SODIUM

Terminal Sacrifice at 105 weeks

			========	=======================================		==== ======	==========	==========
Dose	0 MG/L		Males 1000MG/L	2000MG/L	0 MG/L	Fe 125 MG/L	males 1000MG/L	2000MG/L
All Organs	****	========	==========	**=======	========	=======================================		=========
Malignant and Be	nign Tumors							
TUMOR RATES	#	#	#	#	 #	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	49/50 (98%) 49/49.20 99.6% 36/36 (100%) 381	50/50 (100%) 50/50.00 100.0% 27/27 (100%) 542	50/50 (100%) 50/50.00 100.0% 31/31 (100%) 209	50/50.00 100.0%	49/50 (98%) 49/50.00 98.0% 36/37 (97%) 423	48/50 (96%) 48/49.21 97.5% 35/36 (97%) 365	46/50 (92%) 46/49.17 93.6% 30/33 (91%) 511	48/50 (96% 48/49.41 97.1% 40/41 (98% 475
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.206 P=0.987 P=0.671 P=1.000 P=0.306 P=0.363 P=0.119	P=0.054 P=1.000 P=0.894 P=1.000 P=0.995 P=0.500 (e)	P=0.176 P=1.000 P=0.894 P=1.000 P=0.398 P=0.500 (e)	P=0.073 P=1.000 P=0.894 P=1.000 P=0.764 P=0.500	P=0.149N P=0.429N P=0.401N P=0.470N P=0.274N P=0.380N P=0.359N	P=0.551 P=0.706N P=0.639N P=0.746N P=0.536N P=0.500N (e)	P=0.467 P=0.271N P=0.237N P=0.294N P=0.188N P=0.181N (e)	P=0.168N P=0.652N P=0.589N P=0.716N P=0.444N P=0.500N (e)

- (a) Number of tumor-bearing animals / number of animals examined at site.
- (b) Number of tumor-bearing animals / Poly-3 number
- (d) Observed incidence at terminal kill.
- (f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.

Logistic regression is an alternative

method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates

- For all tests a negative trend is indicated by N
- (e) Value of Statistic cannot be computed.
- (g) Poly-3 adjusted lifetime tumor incidence.
- (I) Interim sacrifice
- (T) Terminal sacrifice
- # Tumor rates based on number of animals necropsied.
- * To the right of any statistical result, indicates significance at (P<=0.05).
- ** To the right of any statistical result, indicates significance at (P<=0.01).

NTP Experiment-Test: 96010-03 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Date: 05/27/03 Time: 14:06:14

Report: PEIRPT18

FINAL#1/RATS

Facility: Southern Research Institute

Chemical CAS #: 7775-09-9

Lock Date: 10/16/01

Cage Range: All

Reasons For Removal: All Removal Date Range: All

Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 05/27/03

Time: 14:06:14

FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Natural Death	3	3	6	5
Moribund Sacrifice	10	11	11	4
Survivors				••
Terminal Sacrifice	37	34	32	40
Natural Death		_	1	1
Moribund Sacrifice		2		
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Small, Duodenum	(50)	(49)	(45)	(49)
Amyloid Deposition		1 [2.0]		
Epithelium, Cyst				1 [1.0]
Liver	(50)	(50)	(50)	(50)
Angiectasis, Focal			2 [2.0]	
Basophilic Focus	42	44	41	42
Cholangiofibrosis	1 [4.0]		1 [4.0]	3 [4.0]
Clear Cell Focus	6	16	18	10
Congestion	6 [2.0]	2 [3.0]	2 [2.5]	1 [2.0]
Degeneration, Cystic, Focal	1 [2.0]		1 [2.0]	3 [2.0]
Eosinophilic Focus		1	1	2
Fibrosis, Focal	1 10 01			1 [1.0]
Hemorrhage Hepatodiaphragmatic Nodule	1 [2.0] 7	4	8	3
Hyperplasia, Focal, Histiocytic	20 [1.6]	19 [1.7]	16 [1.6]	23 [1.8]
Hyperplasia, Focal, Regenerative	1 [1.0]	19 [1.7]	10 [1.0]	1 [3.0]
Hyperplasia, Regenerative	1 [1.0]			2 [4.0]
Infarct, Multiple		1 [3.0]		2 (1.0)
Infiltration Cellular, Focal,		1 (3.0)		
Polymorphonuclear			1 [2.0]	
Infiltration Cellular, Polymorphonuclear		1 [3.0]	•=	
Infiltration Cellular, Mixed Cell	39 [1.9]	38 [1.9]	35 [1.9]	41 [2.0]
Mixed Cell Focus	12	6	7	8
Thrombosis		1 [3.0]		
Bile Duct, Cyst		1 [2.0]		
Bile Duct, Hyperplasia	29 [1.5]	24 [1.5]	34 [1.7]	26 [2.0]
Capsule, Cyst	1 [3.0]			
Hepatocyte, Karyomegaly		1 [3.0]		

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

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FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
ALIMENTARY SYSTEM - CONT				
Hepatocyte, Necrosis, Focal Hepatocyte, Vacuolization Cytoplasmic Hepatocyte, Vacuolization Cytoplasmic,		2 [1.5]	2 [2.0]	1 [2.0]
Diffuse	1 [2.0]	2 [2.5]	1 [2.0]	2 [3.0]
Hepatocyte, Vacuolization Cytoplasmic, Focal	17 [1.5]	10 [1.7]	10 [1.8]	10 [1.4]
Hepatocyte, Periportal, Vacuolization		0 10 01		
Cytoplasmic Hepatocyte, Periportal, Centrilobular,		2 [2.0]		
Vacuolization Cytoplasmic			1 [2.0]	
Hepatocyte, Centrilobular, Necrosis	2 [2.0]	1 [4.0]	1 [3.0]	2 [2.5]
Hepatocyte, Centrilobular, Vacuolization	2 [2.0]	1 [4.0]	1 (5.0)	2 [2.5]
Cytoplasmic	5 [3.0]	3 [3.0]	8 [3.4]	3 [2.3]
Hepatocyte, Midzonal, Vacuolization	• • • • •	,	,	. (2.0)
Cytoplasmic		2 [3.5]		
Mesentery	(18)	(10)	(13)	(16)
Inflammation, Chronic, Focal		1 [2.0]		
Fat, Necrosis	4 [2.5]	2 [2.0]	1 [3.0]	
Fat, Necrosis, Focal	12 [2.3]	5 [2.6]	9 [2.8]	13 [2.6]
Pancreas Lipomatosis	(50)	(49)	(49)	(49)
Acinus, Atrophy, Diffuse				1 [1.0] 1 [4.0]
Acinus, Atrophy, Focal	15 [1.4]	8 [2.1]	9 [1.6]	16 [1.4]
Duct, Cyst, Focal	1 [1.0]	2 [1.0]	4 [1.0]	1 [2.0]
Duct, Cyst, Focal, Multiple	10 [1.4]	14 [1.8]	11 [1.5]	18 [1.6]
Duct, Hyperplasia, Focal	(,	11 (110)	11 (1.5)	1 [1.0]
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy, Focal	2 [2.0]			, ,,
Stomach, Forestomach	(50)	(50)	(50)	(50)
Edema		1 [3.0]	1 [3.0]	1 [2.0]
Erosion		1 [2.0]		
Inflammation, Chronic		2 [2.5]	1 [3.0]	
Inflammation, Chronic, Focal Perforation			1 [2.0]	
Ulcer	2 [2.0]	7 [2.4]	1 [3.0]	1 (2.01
Epithelium, Hyperplasia	2 [2.0]	4 [2.3]	6 [2.5]	1 [2.0] 1 [2.0]
Stomach, Glandular	(50)	(49)	(49)	(50)
Erosion	2 [2.0]	1201	2 [1.5]	2 [1.5]
Erosion, Focal	1 [2.0]		_ ()	= (2.0)
Inflammation, Chronic	1	1 [2.0]		
Necrosis, Focal		1 [2.0]		
Pigmentation, Focal	1 [2.0]	_		
Ulcer		1 [2.0]		
Tooth		(2)	(2)	(1)

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 05/27/03 Time: 14:06:14

FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
ALIMENTARY SYSTEM - CONT Malformation			1		
Dentine, Malformation		1 [3.0]	•		
Peridontal Tissue, Inflammation, Chronic		1 [3.0]	2 [3.0]		
Peridontal Tissue, Inflammation, Chronic,				1 (2 0)	
Focal			17 -	1 [3.0]	
CARDIOVASCULAR SYSTEM					
Blood Vessel		(1)		(1)	
Thrombosis		1 [3.0]			
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	4 [1.5]	2 [2.5]		2 [2.0]	
Infiltration Cellular, Mixed Cell		1 [1.0]	1 [2.0]	4 [1.5]	
Thrombosis	1 [3.0]				
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Accessory Adrenal Cortical Nodule	2 [1.0]	3 [1.3]	5 [1.0]	2 [1.0]	
Angiectasis	2 [2.5]	1 [3.0]	1 [2.0]	2 [3.0]	
Cytoplasmic Alteration, Focal	1 [2.0]	2 [2.0]	3 [2.0]	2 [1.5]	
Degeneration, Cystic, Focal		1 [3.0]		1 [2.0]	
Fibrosis, Focal			1 [2.0]		
Hematopoietic Cell Proliferation		1 [2.0]			
Hemorrhage	1 [3.0]	1 [3.0]		2 [2.5]	
Infiltration Cellular, Mixed Cell		1 [2.0]			
Necrosis, Focal	7 (1 4)	1 [3.0]	7 (1 01	0 [1 0]	
Vacuolization Cytoplasmic, Focal	7 [1.4] (50)	13 [1.6] (50)	7 [1.9] (50)	8 [1.8] (50)	
Adrenal Medulla	(50)	(50)	(30)	1 [3.0]	
Angiectasis	3 [1.0]	4 [1.3]	1 [1.0]	1 [1.0]	
Hyperplasia, Focal Infiltration Cellular, Focal, Lymphoid	[۱۰۰۱] د	# [T-2]	T [T.0]	1 [2.0]	
Infiltration Cellular, Focal, Lymphold Islets, Pancreatic	(50)	(49)	(49)	(50)	
Hyperplasia, Focal	(30)	(42)	1 [2.0]	(30)	
Parathyroid Gland	(47)	(47)	(48)	(47)	
Hyperplasia, Focal	V = · /	\ = · /	1 [3.0]	• - • •	
Pituitary Gland	(49)	(49)	(50)	(50)	
Angiectasis	10 [2.5]	6 [2.8]	2 [3.5]	13 [2.6]	
Pigmentation, Focal	1 [2.0]				
Pars Distalis, Angiectasis	1 [3.0]	2 [2.5]	2 [3.5]		
Pars Distalis, Cyst	2 [2.5]	2 [2.5]	1 [3.0]	2 [1.5]	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18 Date: 05/27/03 Time: 14:06:14

FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
ENDOCRINE SYSTEM - CONT					
Pars Distalis, Cytoplasmic Alteration, Focal	3 [1.0]	1 [1.0]	2 [1.0]	3 [1.7]	
Pars Distalis, Degeneration, Cystic, Focal	11 [1.9]	14 [1.8]	11 [2.4]	3 [2.0]	
Pars Distalis, Hemorrhage, Focal	9 [2.9]	6 [2.8]	10 [2.5]	2 [3.0]	
Pars Distalis, Hyperplasia, Focal	7 [2.3]	5 [2.4]	10 [2.8]	4 [1.8]	
Pars Distalis, Infiltration Cellular, Focal Pars Nervosa, Hyperplasia, Atypical, Focal		1 [3.0]	1 [2.0]		
Rathke's Cleft, Cyst	1 [2.0]	2 [2.5]			
Rathke's Cleft, Hemorrhage	1 [2.0]	2 [2.5]	2 [2.5]	6 [2.8]	
Rathke's Cleft, Hyperplasia, Cystic			1 [3.0]	- (,	
Thyroid Gland	(47)	(47)	(43)	(46)	
Congestion				1 [1.0]	
Ultimobranchial Cyst	1 [2.0]	45 (0.41	1 [1.0]		
C-Cell, Hyperplasia Follicle, Mineralization, Focal	43 [2.2] 25 [1.0]	45 [2.1] 26 [1.0]	43 [2.5] 40 [1.3]	44 [2.3] 44 [2.1]	
Follicular Cell, Hyperplasia, Cystic, Focal	1 [2.0]	20 [1.0]	40 [1.3]	44 [2.1]	
Follicular Cell, Hypertrophy	3 [1.3]	7 [1.0]	27 [1.2]	42 [1.8]	
GENERAL BODY SYSTEM					
Tissue NOS	(1)	(2)	(4)	(6)	
Mediastinum, Cyst			1 [3.0]	1 (2 0)	
Mediastinum, Thrombosis Oral, Foreign Body, Focal				1 [3.0] 1 [3.0]	
Oral, Necrosis, Focal				1 [3.0]	
				1 (3.0)	
GENITAL SYSTEM					
Clitoral Gland	(49)	(50)	(50)	(49)	
Cyst	1 [4.0]	2 (2 01	C [2 0]	1 [2 0]	
Degeneration, Cystic Hyperplasia	5 [3.0]	2 [3.0]	6 [2.8]	1 [3.0] 1 [3.0]	
Hyperplasia, Cystic	1 [3.0]	4 [2.5]	3 [2.3]	1 [3.0]	
Hyperplasia, Cystic, Focal	_ ()	1 [2.0]	0 [2.0]	1 [0.0]	
Inflammation, Chronic	6 [2.8]	2 [1.5]	1 [3.0]	3 [2.3]	
Duct, Inflammation, Chronic	1 [4.0]				
Ovary	(50)	(50)	(49)	(50)	
Cyst Corpus Luteum, Hyperplasia	5 [2.2]	1 [3.0]	1 [3.0]	4 [1.8] 1 [3.0]	
Interstitial Cell, Hyperplasia		1 [2.0]	1 [3.0]	1 [3.0]	
Periovarian Tissue, Cyst	4 [3.0]	4 [3.0]	2 [3.5]	1 [3.0]	
Uterus	(50)	(50)	(49)	(50)	

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b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

NTP Experiment-Test: 96010-03 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

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GENITAL SYSTEM - CONT Hemorrhage Hydrometra Inflammation, Chronic Inflammation, Focal, Suppurative Inflammation, Suppurative Ulcer, Chronic Active Endometrium, Hyperplasia, Cystic Vagina Cyst Inflammation, Chronic	1 [3.0] 16 [1.8] (6) 2 [3.0] 1 [3.0]	1 [3.0] 1 [3.0] 7 [1.4] (3) 1 [3.0]	1 [3.0] 16 [1.9] (3) 1 [3.0]	1 [3.0] 1 [3.0] 1 [3.0] 1 [4.0] 1 [4.8] (1) 1 [3.0]
Inflammation, Suppurative		1 [3.0]	1 [3.0]	
HEMATOPOIETIC SYSTEM				
Bone Marrow Angiectasis Hemorrhage Hyperplasia, Focal, Histiocytic Myeloid Cell, Hyperplasia Myeloid Cell, Erythroid Cell, Hyperplasia Lymph Node Hyperplasia, Plasma Cell Pigmentation Deep Cervical, Hemorrhage Deep Cervical, Hyperplasia, Lymphoid Deep Cervical, Hyperplasia, Plasma Cell Mediastinal, Angiectasis Mediastinal, Congestion	(50) 2 [3.5] 7 [2.4] (36) 1 [3.0] 1 [2.0] 1 [3.0]	(49) 1 [1.0] 3 [2.7] 2 [3.0] (34)	(50) 1 [3.0] 1 [2.0] 2 [3.0] 2 [2.5] 2 [3.0] (30)	(50) 1 [2.0] 2 [4.0] 6 [2.7] 3 [3.0] (39) 1 [3.0]
Mediastinal, Ectasia Mediastinal, Hemorrhage Mediastinal, Hyperplasia, Histiocytic Mediastinal, Hyperplasia, Lymphoid Mediastinal, Hyperplasia, Plasma Cell Mediastinal, Infiltration Cellular, Mixed Cell Mediastinal, Pigmentation Pancreatic, Angiectasis	2 [3.0] 6 [3.0] 1 [3.0] 1 [3.0]	4 [3.0] 6 [3.0] 4 [3.0] 2 [2.5] 1 [3.0]	2 [3.0] 5 [3.0] 2 [3.0] 2 [3.0] 1 [3.0]	4 [3.0] 3 [2.7] 3 [3.0] 3 [3.0]
Pancreatic, Ectasia Pancreatic, Hemorrhage Pancreatic, Hyperplasia, Histiocytic Pancreatic, Hyperplasia, Lymphoid	1 [2.0] 5 [3.0] 31 [1.8]	3 [3.0] 22 [2.2]	15 [2.5] 1 [1.0]	1 [3.0] 5 [2.6] 25 [2.4]

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

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FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
HEMATOPOIETIC SYSTEM - CONT				
Pancreatic, Pigmentation Lymph Node, Mandibular Ectasia	1 [2.0] (4)	7 [1.6] (6) 1 [3.0]	3 [2.0] (4)	6 [1.7] (5)
Lymph Node, Mesenteric Hemorrhage	(50)	(49)	(49)	(50) 1 [3.0]
Hyperplasia, Focal, Histiocytic Hyperplasia, Histiocytic Hyperplasia, Lymphoid	2 [3.0] 1 [3.0]	4 [3.0]	1 [3.0]	4 [3.3]
Spleen Angiectasis, Focal	(50)	(50) 1 [3.0]	(50)	(50) 1 [3.0]
Fibrosis, Focal Hematopoietic Cell Proliferation Hemorrhage Hyperplasia, Focal, Histiocytic	16 [2.4] 1 [2.0] 2 [4.0]	1 [3.0] 21 [2.4] 1 [2.0] 4 [2.8]	8 [2.4] 1 [3.0] 2 [3.5]	1 [3.0] 17 [2.4] 2 [2.5] 5 [3.6]
Infarct Pigmentation, Focal	2 (4.0)	4 [2.0]	1 [3.0]	1 [3.0]
Red Pulp, Fibrosis, Diffuse Thymus Angiectasis	(49) 2 [2.5]	(48) 1 [2.0]	(48)	1 [3.0] (48)
Cyst Hemorrhage Hyperplasia, Lymphoid	1 [3.0] 1 [2.0]	1 [2.0]	2 [2.0]	1 [3.0] 1 [3.0]
INTEGUMENTARY SYSTEM				
Mammary Gland Dilatation Ectasia Fibrosis Fibrosis, Focal	(50) 37 [3.1] 4 [2.8] 2 [2.5] 1 [2.0]	(50) 39 [3.1] 1 [2.0] 1 [3.0]	(50) 34 [3.0] 3 [2.7] 1 [2.0]	(50) 38 [3.1] 2 [2.5] 4 [2.8]
Hyperplasia Hyperplasia, Focal	7 [2.4] 1 [3.0]	11 [2.2]	10 [2.4]	9 [2.3] 1 [4.0]
Inflammation, Chronic Skin Inflammation, Chronic, Focal	(50)	(50) 1 [1.0]	(50)	1 [2.0] (50)
Ulcer Subcutaneous Tissue, Fibrosis, Focal	1 [2.0]	_ , ,		1 [1.0]

MUSCULOSKELETAL SYSTEM

None

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

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NERVOUS SYSTEM				
Brain Compression, Focal Hemorrhage, Focal	(49) 9 [2.7]	(50) 9 [2.9] 4 [2.3]	(50) 10 [2.9] 3 [1.7]	(50) 9 [3.0] 2 [1.5]
Necrosis, Focal Thalamus, Mineralization, Focal Thalamus, Necrosis, Focal	1 [3.0] 1 [3.0]	1 [3.0]		
ESPIRATORY SYSTEM				
Lung Congestion Hemorrhage, Focal Hyperplasia, Focal, Histiocytic Hyperplasia, Histiocytic Infiltration Cellular, Polymorphonuclear Infiltration Cellular, Mixed Cell Inflammation, Chronic, Focal Metaplasia, Focal, Osseous Alveolar Epithelium, Hyperplasia Alveolar Epithelium, Hyperplasia, Focal Interstitium, Edema Mediastinum, Edema Peribronchiolar, Hyperplasia, Lymphoid Nose Inflammation, Suppurative Nasolacrimal Duct, Inflammation Respiratory Epithelium, Metaplasia, Focal, Squamous	(50) 1 [2.0] 1 [2.0] 4 [1.8] 2 [2.5] 2 [1.0] 1 [1.0] 4 [1.5] (50) 1 [2.0]	(50) 1 [2.0] 6 [1.3] 1 [3.0] 3 [2.0] 2 [1.5] (50) 2 [2.0] 1 [2.0]	(50) 2 [3.0] 1 [3.0] 5 [1.6] 2 [2.0] 4 [1.5] 1 [2.0] 3 [2.0] 1 [3.0] 1 [2.0] (50)	(50) 1 [3.0] 2 [3.0] 2 [3.0] 2 [3.0] 2 [1.0] 1 [3.0] 2 [1.0] 2 [1.5] 1 [3.0] (50) 1 [3.0] 1 [2.0]
SPECIAL SENSES SYSTEM	450		(45)	(70)
Eye Atrophy	(50) 1 [3.0]	(49)	(47)	(50)
Cataract Hemorrhage Retinal Detachment	2 [2.5] 1 [3.0]	3 [2.3] 1 [3.0]	1 [3.0]	2 [3.0]
Bilateral, Atrophy Cornea, Inflammation, Chronic Cornea, Necrosis, Focal	1 [4.0] 1 [4.0]	1 [3.0]		1 [4.0]

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

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FISCHER 344 RATS FEMALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
PECIAL SENSES SYSTEM - CONT				
Retina, Degeneration	1 [4.0]	2 [3.0]	1 [3.0]	2 [2.5]
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia, Cystic, Focal	1 [2.0]			
Hyperplasia, Focal	0.10.71			1 [1.0]
Hyperplasia, Focal, Histiocytic	2 [2.5]	1 (2 01	1 [1.0]	2 (1 0)
Inflammation, Chronic, Focal Metaplasia, Focal, Squamous		1 [3.0]	1 [1.0] 1 [3.0]	2 [1.0]
Epithelium, Hyperplasia, Focal	1 [1.0]		1 [3.0]	
				· · · · · · · · · · · · · · · · · · ·
RINARY SYSTEM				
Kidney	(50)	(49)	(47)	(47)
Atrophy, Diffuse		1 [4.0]	, ,	• •
Atrophy, Focal	1 [3.0]			2 [3.0]
Cyst			1 [2.0]	1 [2.0]
Hyperplasia, Lymphoid Infarct		1 [3.0]	1 [2.0] 1 [3.0]	
Intarct				
Infiltration Cellular Polymorphonuclear			T [3.0]	
Infiltration Cellular, Polymorphonuclear Inflammation, Chronic	1 [2.0]	1 [3.0]	1 [3.0]	
Infiltration Cellular, Polymorphonuclear Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous	1 [2.0]		1 [3.0]	1 [3.0]
Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous Nephropathy	1 [2.0] 43 [1.1]	1 [3.0] 2 [2.0] 41 [1.2]	37 [1.1]	1 [3.0] 38 [1.3]
Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous Nephropathy Pelvis, Inflammation, Chronic		1 [3.0] 2 [2.0] 41 [1.2] 1 [3.0]		
Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous Nephropathy Pelvis, Inflammation, Chronic Pelvis, Transitional Epithelium, Hyperplasia	43 [1.1]	1 [3.0] 2 [2.0] 41 [1.2] 1 [3.0] 1 [2.0]	37 [1.1]	38 [1.3]
Inflammation, Chronic Inflammation, Chronic, Focal, Granulomatous Nephropathy Pelvis, Inflammation, Chronic		1 [3.0] 2 [2.0] 41 [1.2] 1 [3.0]		

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

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FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
DISPOSITION SUMMARY					
Animals Initially In Study	50	50	50	50	
Early Deaths					
Moribund Sacrifice	10	13	11	14	
Natural Death	3	10	8	8	
_ Accidently Killed	1				
Survivors	2.5	0.5			
Terminal Sacrifice	36	27	31	28	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Intestine Large, Colon	(48)	(47)	(44)	(49)	
Edema				2 [3.0]	
Intestine Large, Rectum	(48)	(47)	(47)	(50)	
Congestion				1 [3.0]	
Edema				1 [3.0]	
Hemorrhage				1 [3.0]	
Intestine Large, Cecum	(47)	(46)	(43)	(47)	
Edema		1 [3.0]		1 [3.0]	
Ulcer				1 [4.0]	
Intestine Small, Duodenum	(49)	(46)	(46)	(47)	
Ulcer		1 [3.0]			
Epithelium, Hyperplasia				1 [3.0]	
Intestine Small, Jejunum	(47)	(46)	(42)	(44)	
Epithelium, Necrosis	4.453	445	1 [2.0]	445	
Intestine Small, Ileum	(47)	(46)	(42)	(47)	
Ulcer	1 [4.0]	(50)	(40)	(50)	
Liver	(50)	(50)	(48)	(50)	
Angiectasis, Focal	2 [1.5]	1 [2.0]	1 [2.0]	3 [2.0]	
Basophilic Focus Cholangiofibrosis	27 2 [3.0]	30	33	29	
Clear Cell Focus	2 [3.0]	1 [1.0]	1 [4.0]	1 [2.0]	
Congestion	21	18 2 [3.0]	29	15	
Degeneration, Cystic, Focal	13 [1.4]	9 [1.7]	12 [2.0]	14 [1.9]	
Eosinophilic Focus	13 (1.4) 2	3	12 [2.0]	2	
Fibrosis, Focal	Z.	1 [3.0]		1 [2.0]	
Hemorrhage, Focal	1 [3.0]	1 (3.0)		1 [2-0]	
Hepatodiaphragmatic Nodule	6 [2.7]	2 [3.0]	3 [3.0]	5 [3.0]	
Hyperplasia, Focal, Histiocytic	6 [1.8]	2 [1.5]	8 [1.5]	5 [1.4]	
Hyperplasia, Focal, Lymphoid	- (= -0)	,	1 [3.0]	1 [2.0]	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 05/27/03

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FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
ALIMENTARY SYSTEM - CONT				
Infarct	1 [3.0]			
Infiltration Cellular, Mixed Cell	36 [2.0]	29 [1.9]	33 [1.9]	28 [2.0]
Mixed Cell Focus	13	11	3	8
Bile Duct, Hyperplasia	48 [2.8]	49 [2.9]	46 [2.8]	50 [2.9]
Centrilobular, Congestion		1 [3.0]		
Hepatocyte, Necrosis, Focal		1 [2.0]		2 [2.5]
Hepatocyte, Vacuolization Cytoplasmic,		- .		,
Diffuse	3 [2.3]	3 [2.7]		4 [3.3]
Hepatocyte, Vacuolization Cytoplasmic, Focal	26 [1.8]	15 [1.7]	14 [1.9]	18 [1.7]
Hepatocyte, Periportal, Necrosis		1 [3.0]		
Hepatocyte, Periportal, Vacuolization				
Cytoplasmic		1 [2.0]	1 [2.0]	
Hepatocyte, Centrilobular, Atrophy				1 [3.0]
Hepatocyte, Centrilobular, Necrosis	1 [4.0]	3 [2.0]	6 [2.5]	4 [2.5]
Hepatocyte, Centrilobular, Vacuolization				
Cytoplasmic	4 [2.8]	9 [3.0]	12 [2.9]	11 [2.6]
Hepatocyte, Midzonal, Necrosis	1 [3.0]			
Hepatocyte, Midzonal, Vacuolization				
Cytoplasmic	6 [2.5]	1 [3.0]		1 [3.0]
Hepatocyte, Midzonal, Vacuolization		4 (2 0)		
Cytoplasmic, Focal		1 [3.0]		
Portal, Fibrosis		1 [3.0]		
Portal, Hemorrhage	(10)	1 [3.0]	(10)	(22)
Mesentery Angiectasis	(19)	(20) 1 [3.0]	(19)	(23)
Hemorrhage	1 [4.0]	1 [3.0]	1 [3.0]	
Inflammation, Chronic	1 [4.0]		1 [3.0]	
Inflammation, Chronic, Focal			1 [3.0]	1 [3.0]
Fat, Necrosis	2 [3.0]		2 [3.0]	2 [2.0]
Fat, Necrosis, Focal	12 [2.8]	10 [2.7]	13 [2.5]	14 [2.5]
Pancreas	(49)	(49)	(49)	(50)
Inflammation, Chronic	1 [3.0]	(15)	(10)	(50)
Acinus, Atrophy, Diffuse	_ [5.0]			1 [4.0]
Acinus, Atrophy, Focal	23 [1.8]	23 [2.1]	27 [1.9]	15 [1.7]
Acinus, Hyperplasia, Focal	1 [3.0]	1 [2.0]		,
Duct, Cyst, Focal	,	- •	1 [3.0]	1 [3.0]
Duct, Cyst, Focal, Multiple	15 [1.7]	13 [1.6]	18 [1.8]	15 [1.8]
Salivary Glands	(49)	(50)	(50)	(50)
Atrophy				1 [3.0]
Hyperplasia, Focal, Histiocytic				1 [3.0]
Stomach, Forestomach	(50)	(50)	(50)	(50)
m 4	1 [3.0]	1 [3.0]		4 [3.0]
Edema Erosion	1 [3.0]	1 (3.0)	1 [3.0]	# [2·0]

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 05/27/03

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FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
ALIMENTARY SYSTEM - CONT				
Inflammation, Chronic		4 [2.3]		1 [3.0]
Inflammation, Chronic, Focal			1 [3.0]	
Inflammation, Focal		1 [2.0]	1 [3.0]	4 [0 0]
Ulcer Epithelium, Cyst	1 [2.0] 1 [2.0]	5 [2.4]	2 [1.5]	4 [2.8]
Epithelium, Hyperplasia	2 [2.0]	8 [2.4]	1 [3.0]	7 [2.3]
Epithelium, Hyperplasia, Focal	2 (2.0)	0 [2.1]	1 [3.0]	, [2.5]
Stomach, Glandular	(49)	(48)	(48)	(50)
Erosion	3 [1.3]	2 [2.0]	4 [1.8]	4 [1.5]
Perforation				1 [3.0]
Pigmentation, Focal		1 [2.0]	1 [1.0]	2 (0 5)
Ulcer	1 [3.0]	1 [2 0]		3 [2.7]
Epithelium, Hyperplasia, Focal Tonque	(1)	1 [2.0] (1)	(1)	(1)
Epithelium, Hyperplasia	1 [3.0]	(1)	(1)	(1)
Tooth	1 [3.0]	(1)	(1)	
Malformation		(-,	1 [2.0]	
Peridontal Tissue, Hyperplasia, Squamous		1 [3.0]		
CARDIOVASCULAR SYSTEM Heart Cardiomyopathy Infiltration Cellular, Mixed Cell	(50) 6 [1.5] 2 [1.5]	(50) 3 [2.0] 1 [2.0]	(50) 7 [1.7]	(50) 10 [1.8] 2 [2.0]
Inflammation, Chronic, Focal Thrombosis Artery, Inflammation, Chronic, Focal Endocardium, Valve, Inflammation, Chronic,	1 [3.0] 1 [2.0]	1 [4.0]	2 [3.0]	1 [3.0] 2 [3.0]
Focal	1 [2.0]			
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(49)	(50)	(50)
Accessory Adrenal Cortical Nodule	1 [1.0]	7 [1.0]	4 [1.3]	3 [1.0]
Atrophy			1 [3.0]	
Cytoplasmic Alteration, Focal	3 [1.3]	3 [1.7]	2 [1.5]	4 [1.8]
Degeneration, Cystic, Focal			2 [3.0]	
Hyperplasia, Diffuse			1 [3.0]	1 [0 0]
Infiltration Cellular, Mixed Cell			1 [2 0]	1 [2.0]
Necrosis, Focal Vacuolization Cytoplasmic, Diffuse		1 [3.0]	1 [2.0]	
vacuofizacion cycopiasmic, biffuse		I [3.0]		

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 96010-03 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 05/27/03

Time: 14:06:14

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
ENDOCRINE SYSTEM - CONT					
Vacuolization Cytoplasmic, Focal	12 [1.5]	8 [1.4]	7 [1.9]	6 [1.5]	
Capsule, Fibrosis, Focal		1 [2.0]		•	
Adrenal Medulla	(49)	(49)	(50)	(50)	
Hyperplasia, Focal	5 [1.6]	12 [1.4]	9 [1.6]	13 [1.8]	
Islets, Pancreatic	(50)	(49)	(49)	(50)	
Hyperplasia		2 [2.0]			
Hyperplasia, Focal	1 [2.0]	1 [2.0]			
Parathyroid Gland	(49)	(50)	(47)	(49)	
Hyperplasia, Focal				1 [2.0]	
Pituitary Gland	(48)	(50)	(49)	(50)	
Angiectasis	2 [2.0]	4 [2.5]	1 [2.0]	3 [2.7]	
Hemorrhage		1 [4.0]			
Hemorrhage, Focal				1 [2.0]	
Pars Distalis, Cyst	2 [1.5]	1 [3.0]	1 [2.0]	1 [2.0]	
Pars Distalis, Cytoplasmic Alteration, Focal	3 [1.3]	7 [1.4]	3 [1.0]	8 [1.4]	
Pars Distalis, Degeneration, Cystic, Focal	2 [1.0]	2 [3.0]			
Pars Distalis, Hemorrhage, Focal	2 [3.0]	2 [2.5]	1 [2.0]	3 [2.7]	
Pars Distalis, Hyperplasia, Focal	4 [2.3]	2 [3.5]	3 [2.3]	1 [2.0]	
Pars Distalis, Pars Nervosa, Hemorrhage,					
Focal			1 [3.0]		
Pars Intermedia, Hemorrhage, Focal			1 [2.0]		
Rathke's Cleft, Cyst				1 [4.0]	
Rathke's Cleft, Hemorrhage	1 [3.0]		2 [2.5]	2 [3.0]	
Rathke's Cleft, Hyperplasia, Cystic		1 [2.0]			
Thyroid Gland	(47)	(44)	(43)	(47)	
C-Cell, Hyperplasia	45 [1.8]	42 [2.0]	41 [2.0]	44 [1.8]	
C-Cell, Hyperplasia, Focal			1 [2.0]		
Follicle, Cyst	1 [2.0]		1 [2.0]	2 [3.0]	
Follicle, Degeneration, Cystic, Focal	2 [1.5]				
Follicle, Mineralization, Focal	45 [1.1]	43 [1.1]	42 [2.0]	42 [2.3]	
Follicular Cell, Hypertrophy	4 [1.3]	13 [1.2]	33 [1.5]	40 [2.0]	
Follicular Cell, Hypertrophy, Focal	1 [1.0]				
GENERAL BODY SYSTEM					
Tissue NOS	(5)	(6)	(2)	(7)	
Abdominal, Fibrosis			1 [3.0]		
Mediastinum, Hemorrhage		1 [3.0]			

GENITAL SYSTEM

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 05/27/03

Time: 14:06:14

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
GENITAL SYSTEM - CONT	<u> </u>			
Epididymis	(50)	(50)	(50)	(50)
Fibrosis				1 [3.0]
Inflammation, Chronic	1 [2.0]	1 [3.0]		2 [2.5]
Penis		(2)		
Thrombosis		1 [2.0]		
Preputial Gland	(48)	(49)	(50)	(50)
Atrophy				1 [3.0]
Cyst		1 [2.0]	1 [2.0]	
Degeneration, Cystic		2 [3.0]	1 [3.0]	2 [3.0]
Hyperplasia, Cystic		1 [3.0]	40 (4 0)	1 [3.0]
Inflammation, Chronic	22 [1.7]	12 [1.8]	18 [1.8]	20 [1.3]
Necrosis	4501	(40)	1501	1 [3.0]
Prostate	(50)	(49)	(50)	(50)
Inflammation, Chronic	21 [1.9]	23 [2.0]	29 [2.2]	30 [1.8] 4 [2.3]
Mineralization, Focal	3 [2.0]	2 [2.5]	3 [2.0]	11 [1.2]
Epithelium, Hyperplasia, Focal	11 [1.3] (50)	4 [1.3] (50)	2 [2.0] (50)	(50)
Testes Atrophy	4 [3.0]	10 [2.9]	9 [2.9]	6 [3.2]
Bilateral, Atrophy	4 [3.0]	1 [3.0]	9 [2.9]	0 [3.2]
Germinal Epithelium, Atrophy		1 [3.0]		1 [3.0]
Germinal Epithelium, Degeneration	1 [2.0]			1 [3.0]
Interstitial Cell, Hyperplasia, Focal	1 [1.0]	1 [2.0]	1 [2.0]	3 [1.7]
HEMATOPOIETIC SYSTEM				
Bone Marrow Angiectasis	(48)	(48) 1 [2.0]	(50)	(49)
Anglectasis Atrophy		1 [2.0]		1 [3.0]
Fibrosis	2 [3.0]			
Hyperplasia	28 [1.9]	35 [2.3]	41 [2.4]	40 [2.7]
Myeloid Cell, Erythroid Cell, Hyperplasia	2 [2.5]			
Lymph Node	(34)	(24)	(26)	(34)
Ectasia	1 [4.0]			
Hemorrhage				1 [3.0]
Deep Cervical, Hemorrhage			1 [3.0]	
Deep Cervical, Hyperplasia, Plasma Cell	1 [3.0]			
Mediastinal, Angiectasis			1 [3.0]	
Mediastinal, Ectasia	5 [2.6]	7 [3.0]	5 [3.0]	3 [3.3]
Mediastinal, Hemorrhage	3 [3.0]	2 [2.5]	2 [3.0]	1 [3.0]
Mediastinal, Hyperplasia, Histiocytic	4 (2 6)	3 [3.0]	2 [3.0]	1 [3.0]
Mediastinal, Hyperplasia, Lymphoid	1 [3.0]		1 [3.0]	3 [3.3]
Mediastinal, Hyperplasia, Plasma Cell	1 [3.0]		2 [3.0]	

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18 Date: 05/27/03 Time: 14:06:14

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
EMATOPOIETIC SYSTEM - CONT				C 0.0F.30	-
Mediastinal, Infiltration Cellular,					
Polymorphonuclear		1 [3.0]			
Mediastinal, Inflammation, Chronic Active		1 (3.0)		1 [3.0]	
Mediastinal, Inflammation, Suppurative		1 [3.0]		1 (0.0)	
Pancreatic, Angiectasis	2 [3.0]	_ (
Pancreatic, Ectasia	3 [2.7]	3 [3.0]	3 [3.0]	6 [2.8]	
Pancreatic, Hemorrhage	5 [2.8]	3 [3.0]	1 [2 0]	1 [3.0]	
Pancreatic, Hyperplasia, Histiocytic	8 [3.0]	5 [3.0]	9 [3.0]	6 [3.0]	
Pancreatic, Hyperplasia, Lymphoid	1 [3.0]	1 [3.0]			
Pancreatic, Pigmentation	1 [2.0]	1 [2.0]	1 [3.0]		
Renal, Hemorrhage			1 [3.0]		
Renal, Hyperplasia, Focal, Histiocytic		1 [3.0]			
Renal, Hyperplasia, Lymphoid		1 [3.0]			
Lymph Node, Mesenteric	(49)	(50)	(49)	(50)	
Amyloid Deposition				1 [4.0]	
Ectasia	1 [3.0]	1 [3.0]	1 [3.0]	3 [3.7]	
Hemorrhage		2 [2.5]	3 [3.0]		
Hyperplasia, Focal, Histiocytic	1 [2.0]				
Hyperplasia, Histiocytic	3 [3.0]	3 [3.0]		1 [3.0]	
Hyperplasia, Lymphoid	2 [3.0]	1 [3.0]		1 [3.0]	
Spleen	(48)	(49)	(49)	(50)	
Amyloid Deposition		1 [3.0]			
Angiectasis, Focal		2 [3.0]	1 [3.0]	3 [2.3]	
Atrophy				1 [2.0]	
Congestion	1 [3.0]			1 [3.0]	
Fibrosis, Focal	0 (0 =1	2 [3.0]	2 [3.0]	4 [2.8]	
Hematopoietic Cell Proliferation	2 [2.5]	6 [2.3]	4 [2.5]	11 [2.5]	
Hemorrhage	1 [3.0]	1 [2.0]			
Hyperplasia, Focal, Histiocytic	1 [3.0]	1 [2.0]	2 [2.0]	1 [3.0]	
Infarct, Multiple			1 10 01	1 [3.0]	
Metaplasia, Focal, Lipocyte	4 (4 01		1 [2.0]		
Necrosis	1 [4.0]			1 (2 0)	
Pigmentation Fogal			1 12 03	1 [3.0]	
Pigmentation, Focal	1 (2 0)		1 [3.0]		
Capsule, Accessory Spleen, Focal	1 [2.0]			1 (2 0)	
Capsule, Fibrosis, Focal		1 (2 ()		1 [2.0]	
Lymphoid Follicle, Atrophy	(40)	1 [3.0]	(40)	(47)	
Thymus Angiectasis	(48)	(48)	(49)	(47)	
Cyst		1 (2 0)	1 [3.0]		
Hemorrhage	1 [3.0]	1 [2.0]	3 [2.3]		
Hyperplasia, Lymphoid	1 [3.0]	2 [2.5]	2 [2.5]	1 [3.0]	
Myperprasta, mymphord			Z [Z.5]	T [3.0]	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 05/27/03 Time: 14:06:14

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L
INTEGUMENTARY SYSTEM				
Mammary Gland	(45)	(43)	(47)	(44)
Cyst Dilatation	7 [2.7]	7 [2.7]	7 [2.1]	1 [3.0] 2 [2.5]
Hyperplasia Inflammation, Chronic, Focal	1 [2.0]	1 [2.0]	2 [2.5]	2 [3.0] 1 [1.0]
Skin Cyst Epithelial Inclusion	(50) 3 [3.3]	(50) 1 [3.0]	(50) 3 [2.3]	(50) 1 [2.0]
Fibrosis, Focal		2 [3.0]		1 (2.0)
Hyperkeratosis, Focal Inflammation, Chronic, Focal	1 [3.0]	2 [3.0]	1 [3.0]	
Ulcer		1 [3.0]		
Artery, Subcutaneous Tissue, Thrombosis Epidermis, Hyperplasia, Focal	1 [3.0]	1 [3.0]		
Lip, Inflammation, Chronic, Focal Subcutaneous Tissue, Cyst		1 [3.0] 1 [4.0]		
Subcutaneous Tissue, Cyst Epithelial		1 [4.0]		
Inclusion Subcutaneous Tissue, Hyperplasia, Focal,			1 [3.0]	
Histiocytic				1 [3.0]
Subcutaneous Tissue, Inflammation, Chronic, Focal		1 [3.0]		
Subcutaneous Tissue, Inflammation, Chronic,			1 [2 0]	
Focal, Suppurative			1 [3.0]	
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Cranium, Hyperostosis		1 [2.0]		
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression, Focal	6 [3.2]	6 [2.8]	7 [3.0] 4 [1.3]	6 [3.0] 6 [2.7]
Hemorrhage, Focal Cerebrum, Ventricle, Hydrocephalus	2 [2.5]	2 [3.5] 1 [2.0]	4 [1.3]	0 [2./]

RESPIRATORY SYSTEM

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18 Date: 05/27/03 Time: 14:06:14

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000 M G/L	2000MG/L
RESPIRATORY SYSTEM - CONT				
Lung	(50)	(50)	(50)	(50)
Congestion	2 [2.0]	1 [3.0]	3 [3.0]	
Foreign Body, Focal	1 [2.0]			
Hemorrhage			1 [2.0]	
Hemorrhage, Focal	3 [1.3]	1 [2.0]	2 [2.0]	2 [2.0]
Hyperplasia, Focal, Histiocytic		1 [1.0]	1 [1.0]	
Hyperplasia, Histiocytic	2 [1.0]	1 [1.0]	1 [1.0]	2 [1.0]
Infiltration Cellular, Mixed Cell	1 [2.0]	3 [2.0]	1 [2.0]	2 [2.5]
Inflammation, Chronic, Focal	5 [2.2]	2 [1.0]	3 [1.3]	3 [1.7]
Inflammation, Focal, Suppurative		1 [3.0]		
Alveolar Epithelium, Hyperplasia, Focal	8 [1.9]	5 [1.6]	3 [2.0]	4 [2.8]
Alveolar Epithelium, Metaplasia, Squamous		1 [3.0]		
Alveolus, Edema, Focal			1 [2.0]	
Alveolus, Hyperplasia, Focal, Histiocytic	1 [3.0]			
Interstitium, Edema		1 [3.0]		1 [3.0]
Mediastinum, Edema		1 [3.0]	1 [3.0]	
Nose	(49)	(49)	(49)	(50)
Foreign Body		1 [2.0]	2 [2.0]	1 [2.0]
Inflammation, Chronic	1 [2.0]			
Inflammation, Suppurative	1 [2.0]	1 [3.0]	6 [2.0]	1 [2.0]
Nasolacrimal Duct, Inflammation	1 [1.0]	3 [2.0]		1 [2.0]
Olfactory Epithelium, Hyperplasia, Focal			1 [2.0]	
Respiratory Epithelium, Hyperplasia, Focal			1 [3.0]	
Trachea	(50)	(49)	(50)	(50)
Peritracheal Tissue, Edema		1 [3.0]		
SPECIAL SENSES SYSTEM				
Eye	(50)	(48)	(46)	(50)
Atrophy		0 10 51	4 (2 2)	2 [3.0]
Cataract		2 [2.5]	1 [3.0]	2 [2.5]
Exudate		1 [3.0]	4 10 01	
Cornea, Inflammation, Chronic			1 [3.0]	
Cornea, Retrobulbar, Inflammation, Chronic				
Active				1 [3.0]
Retina, Degeneration		2 [3.5]	1 [3.0]	2 [3.0]
Harderian Gland	(49)	(49)	(49)	(50)
Fibrosis, Focal				1 [2.0]
Hyperplasia, Focal, Histiocytic		1 [2.0]	1 [2.0]	1 [1.0]
Inflammation, Chronic, Focal		1 [3.0]	1 [1.0]	1 [2.0]
Inflammation, Chronic Active, Diffuse				1 [4.0]
Epithelium, Hyperplasia, Focal	1 [2.0]			

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b] WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18 Date: 05/27/03

Time: 14:06:14

FISCHER 344 RATS MALE	0 MG/L	125 MG/L	1000MG/L	2000MG/L	
URINARY SYSTEM					
Kidney	(47)	(46)	(49)	(49)	
Cyst			1 [2.0]		
Cyst, Multiple		1 [2.0]			
Hydronephrosis		1 [4.0]			
Infarct			1 [3.0]		
Infarct, Multiple	1 [4.0]	1 [3.0]			
Metaplasia, Focal, Lipocyte		1 [3.0]			
Nephropathy	45 [1.6]	44 [1.7]	48 [1.8]	47 [1.7]	
Cortex, Medulla, Atrophy		1 [4.0]			
Pelvis, Infiltration Cellular, Mixed Cell			4 (0 0)	1 [2.0]	
Pelvis, Transitional Epithelium, Hyperplasia		1 [2.0]	1 [2.0]		
Renal Tubule, Accumulation, Hyaline Droplet		1 [2.0]	4 [2.3]	2 [2.5]	
Renal Tubule, Hyperplasia, Focal	4 (0 3)	1 [2.0]	1 (0 01	4 (2 0)	
Renal Tubule, Pigmentation	4 [2.3]	4 [1.8]	1 [2.0]	4 [2.8]	
Urinary Bladder	(48)	(49) 1 [3.0]	(47)	(50)	
Calculus Micro Observation Only Edema		1 [3.0]		2 [3.0]	
Hemorrhage			2 [2.0]	2 (5.0)	
Inflammation, Chronic			1 [4.0]		
Serosa, Inflammation, Focal			1 [1.0]	1 [2.0]	
Transitional Epithelium, Hyperplasia, Diffuse		1 [2.0]		- 101	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

 END OF	REPORT	

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INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 03/26/03 Time: 10:32:58

FINAL#1/MICE

Facility: Southern Research Institute

Chemical CAS #: 7775-09-9

Lock Date: 10/16/01

Cage Range: All

Reasons For Removal: A11

Removal Date Range: Treatment Groups:

Include All

A11

a Number of animals examined microscopically at site and number of animals with lesion

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths	4.0	1.0	10	7
Natural Death	10	10	12	7 8
Moribund Sacrifice	3 1	5	6	0
Accidently Killed	1			
Survivors Terminal Sacrifice	36	34	31	35
Moribund Sacrifice	30	1	J.	J.J
Other		-	1	
5 5125				
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Colon	(48)	(49)	(48)	(49)
Hemorrhage	1 (2%)			
Intestine Large, Cecum	(44)	(47)	(47)	(47)
Edema	4 (9%)	6 (13%)	6 (13%)	6 (13%)
Hemorrhage	1 (2%)		1 (2%)	
Inflammation, Chronic			1 (2%)	
Ulcer Intestine Small, Duodenum	(46)	(47)	(47)	(50)
Ulcer	(40)	1 (2%)	1 (2%)	(30)
Epithelium, Hyperplasia		1 (20)	2 (4%)	
Intestine Small, Ileum	(42)	(45)	(46)	(47)
Inflammation, Chronic	• •	• •	1 (2%)	1 (2%)
Epithelium, Hyperplasia			1 (2%)	1 (2%)
Liver	(49)	(50)	(49)	(50)
Angiectasis	2 (4%)		2 (4%)	1 (2%)
Basophilic Focus	5 (10%)		4 (8%)	1 (2%)
Clear Cell Focus	3 (6%)	0 (100)	1 (2%) 13 (27%)	7 (14%)
Eosinophilic Focus	9 (18%) 7 (14%)	9 (18%) 4 (8%)	3 (6%)	7 (14%) 8 (16%)
Hematopoietic Cell Proliferation Hemorrhage	/ (146)	4 (06)	1 (2%)	0 (100)
Hemorrhage Hepatodiaphragmatic Nodule		1 (2%)	1 (2.0)	
Hyperplasia, Lymphoid	4 (8%)	7 (14%)	3 (6%)	5 (10%)
Infarct	2 (00)	1 (2%)	- (- • /	- \/
Infiltration Cellular, Mixed Cell	7 (14%)	7 (14%)		7 (14%)
Mixed Cell Focus	7 (14%)	2 (4%)	3 (6%)	3 (6%)
Necrosis, Focal	5 (10%)	1 (2%)	4 (8%)	1 (2%)
Tension Lipidosis	2 (4%)	3 (6%)		1 (2%)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 96010-04

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Study Type: CHRONIC WATT

Report: PEIRPT03 Date: 03/26/03 Time: 10:32:58

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
ALIMENTARY SYSTEM - CONT				
Centrilobular, Necrosis	2 (4%)	2 (4%)	2 (4%)	2 (4%)
Hepatocyte, Karyomegaly	2 (40)	2 (40)	2 (40)	3 (6%)
Hepatocyte, Vacuolization Cytoplasmic	4 (8%)	3 (6%)	6 (12%)	4 (8%)
Kupffer Cell, Hyperplasia	4 (00)	1 (2%)	1 (2%)	2 (4%)
Kupffer Cell, Pigmentation	3 (6%)	4 (8%)	4 (8%)	7 (14%)
Mesentery	(30)	(32)	(27)	• • •
Angiectasis	1 (3%)	(32)	(27)	(24)
Hemorrhage	1 (3%)			1 (4%)
Inflammation, Chronic	1 (36)			1 (40)
Fat, Necrosis	21 (70%)	24 (75%)	00 (740)	1 (4%)
Pancreas			20 (74%)	16 (67%)
Atrophy	(46)	(47)	(49)	(48)
Cyst	2 (4%)	1 (2%)	1 (00)	1 (2%)
Acinus, Hyperplasia, Focal		1 (2%)	1 (2%)	1 (00)
Salivary Glands	440)	4.47	440)	1 (2%)
Hyperplasia, Lymphoid	(48)	(47)	(49)	(50)
Stomach, Forestomach	16 (33%)	21 (45%)	15 (31%)	18 (36%)
Diverticulum	(49)	(50)	(50)	(49)
Edema	2 (4%)	1 (2%)	1 (2%)	2 (4%)
			3 (6%)	
Erosion	1 (00)	1 (2%)	2 (4%)	2 (4%)
Hyperplasia	1 (2%)			
Inflammation, Chronic Active			2 (4%)	2 (4%)
Ulcer	2 (4%)		3 (6%)	3 (6%)
Epithelium, Hyperplasia	3 (6%)	4 (8%)	9 (18%)	6 (12%)
Stomach, Glandular	(49)	(48)	(50)	(49)
Erosion		1 (2%)	2 (4%)	
Ulcer			1 (2%)	
CARDIOVASCULAR SYSTEM				
Blood Vessel	(1)	(3)		(1)
Aorta, Mineralization		1 (33%)		
Heart	(49)	(50)	(49)	(50)
Cardiomyopathy	1 (2%)	1 (2%)	1 (2%)	
Mineralization	1 (2%)		1 (2%)	2 (4%)
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(49)	(49)	(50)
Accessory Adrenal Cortical Nodule	4 (8%)	2 (4%)	7 (14%)	7 (14%)
Hyperplasia, Focal	, ,		1 (2%)	. ,= /

a Number of animals examined microscopically at site and number of animals with lesion

3

NTP Experiment-Test: 96010-04 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 03/26/03 Time: 10:32:58

2000MG/L 0 MG/L 500 MG/L 1000MG/L B6C3F1 MICE FEMALE ENDOCRINE SYSTEM - CONT 1 (2%) 2 (4%) Capsule, Hyperplasia Zona Reticularis, Vacuolization Cytoplasmic 1 (2%) 1 (2%) (50) (49)(49)(50)Adrenal Medulla 2 (4%) 2 (4%) 1 (2%) Hyperplasia (47)(49)(49)(46)Islets, Pancreatic 9 (20%) 6 (13%) 4 (8%) 3 (6%) Hyperplasia (47)(48)(47)(45) Parathyroid Gland 1 (2%) 1 (2%) 2 (4%) 2 (4%) Cyst (45) (48)(50) Pituitary Gland (46)1 (2%) 2 (4%) 2 (4%) Pars Distalis, Angiectasis Pars Distalis, Cyst 1 (2%) 3 (7%) 3 (7%) 3 (6%) 1 (2%) Pars Distalis, Hyperplasia, Focal (48)(50) (49)(50)Thyroid Gland 32 (64%) 25 (52%) 28 (56%) 34 (69%) Degeneration, Cystic 1 (2%) 1 (2%) 1 (2%) Follicle, Cyst 2 (4%) Follicular Cell, Cyst Follicular Cell, Hypertrophy 3 (6%) 2 (4%) 5 (10%) 14 (28%)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM				
Clitoral Gland	(47)	(47)	(47)	(49)
Inflammation, Chronic		2 (4%)		4 (8%)
Ovary	(45)	(45)	(47)	(50)
Angiectasis	3 (7%)	2 (4%)	4 (9%)	3 (6%)
Cyst	9 (20%)	14 (31%)	14 (30%)	13 (26%)
Cyst, Hemorrhagic	1 (2%)			
Hemorrhage	1 (2%)			
Thrombosis	3 (7%)	1 (2%)	1 (2%)	
Bilateral, Cyst		1 (2%)		
Follicle, Hemorrhage	1 (2%)	4 (9%)	4 (9%)	9 (18%)
Granulosa Cell, Hyperplasia			3 (6%)	7 (14%)
Uterus	(50)	(50)	(50)	(50)
Angiectasis	1 (2%)	, <i>.</i>	2 (4%)	1 (2%)
Hyperplasia, Atypical	_ (,	1 (2%)	` '	
Hyperplasia, Cystic	45 (90%)	45 (90%)	40 (80%)	41 (82%)
Inflammation, Chronic	15 (500)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2 (4%)	(,
Inflammation, Suppurative	1 (2%)		_ (/	

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 96010-04

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)

Study Type: CHRONIC Route: DOSED WATER

Report: PEIRPT03 WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Date: 03/26/03 Time: 10:32:58

B6C3F1 MICE FEMALE	0 MG/L	500 M G/L	1000MG/L	2000MG/L	
GENITAL SYSTEM - CONT					
Metaplasia, Squamous		2 (4%)	1 (2%)		
Endometrium, Hyperplasia, Atypical		1 (2%)	1 (20)		
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Hyperplasia	14 (28%)	28 (56%)	29 (58%)	31 (62%)	
Myelofibrosis	1 (2%)	2 (4%)	1 (2%)	2 (4%)	
Lymph Node	(7)	(5)	(11)	(9)	
Iliac, Hemorrhage			1 (9%)		
Iliac, Hyperplasia, Lymphoid	1 (14%)			1 (11%)	
Mediastinal, Hyperplasia, Lymphoid	1 (14%)	1 (20%)	2 (18%)		
Mediastinal, Pigmentation	1 (14%)				
Pancreatic, Hemorrhage				1 (11%)	
Renal, Hemorrhage	1 (14%)			1 (11%)	
Lymph Node, Mandibular	(46)	(46)	(49)	(49)	
Atrophy		1 (2%)		1 (2%)	
Hematopoietic Cell Proliferation		1 (2%)	1 (2%)	1 (2%)	
Hyperplasia, Lymphoid	12 (26%)	7 (15%)	7 (14%)	10 (20%)	
Pigmentation	18 (39%)	16 (35%)	18 (37%)	15 (31%)	
Lymph Node, Mesenteric Atrophy	(47)	(49)	(49)	(49)	
Ectasia	1 (2%)	1 (2%)		2 (4%)	
Hematopoietic Cell Proliferation	2 (4%)	2 (40)	1 (00)	1 (2%)	
Hemorrhage	2 (4%)	2 (4%)	1 (2%)	2 (4%)	
Hyperplasia, Lymphoid	4 (9%)	2 (4%)	11 (228)	1 (2%)	
Pigmentation	10 (21%) 1 (2%)	8 (16%) 2 (4%)	11 (22%)	6 (12%)	
Spleen	(49)	(48)	(49)	/E01	
Accessory Spleen	(45)	(40)	(47)	(50) 1 (2%)	
Hematopoietic Cell Proliferation	39 (80%)	39 (81%)	35 (71%)	39 (78%)	
Hyperplasia, Lymphoid	11 (22%)	10 (21%)	5 (10%)	9 (18%)	
Pigmentation	28 (57%)	30 (63%)	28 (57%)	27 (54%)	
Lymphoid Follicle, Atrophy	1 (2%)	2 (4%)	1 (2%)	2 (4%)	
Thymus	(48)	(44)	(48)	(48)	
Atrophy	5 (10%)	7 (16%)	5 (10%)	9 (19%)	
Cyst	3 (6%)	,	1 (2%)	1 (2%)	
Hyperplasia, Lymphoid	5 (10%)	3 (7%)	4 (8%)	2 (4%)	
Hyperplasia, Lymphoid INTEGUMENTARY SYSTEM	5 (10%)	3 (7%)	4 (8%)	2 (4%)	
Mammary Gland	(50)	(50)	(50)	(50)	
	• • •	, ,	,	· ,	

a Number of animals examined microscopically at site and number of animals with lesion

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
INTEGUMENTARY SYSTEM - CONT Hyperplasia Skin Edema Epidermis, Hyperplasia Subcutaneous Tissue, Edema	5 (10%) (48) 1 (2%)	11 (22%) (50) 1 (2%)	8 (16%) (50) 1 (2%)	10 (20%) (50) 1 (2%) 1 (2%) 2 (4%)
MUSCULOSKELETAL SYSTEM				
Bone Callus	(50) 1 (2%)	(50)	(50)	(50)
Fracture Hyperostosis Cranium, Osteopetrosis	1 (2%)	1 (2%) 1 (2%)	1 (2%) 4 (8%) 1 (2%) 1 (2%)	1 (2%) 3 (6%)
Femur, Osteopetrosis Skeletal Muscle Angiectasis Atrophy		(2)	(4)	(6) 1 (17%) 1 (17%)
NERVOUS SYSTEM				
Brain Compression Inflammation, Chronic Necrosis Peripheral Nerve Atrophy	(50) 1 (2%)	(50)	(50) 1 (2%) 1 (2%) (2) 1 (50%)	(50) 1 (2%) 1 (2%) 1 (2%) (2) 2 (100%)
RESPIRATORY SYSTEM				
Lung Edema Foreign Body	(50) 5 (10%) 2 (4%)	(50) 8 (16%)	(49) 3 (6%)	(50) 5 (10%)
Hemorrhage Hyperplasia, Lymphoid	5 (10%) 10 (20%)	8 (16%) 8 (16%)	6 (12%) 3 (6%)	4 (8%) 9 (18%)
Infiltration Cellular, Polymorphonuclear Infiltration Cellular, Histiocyte Metaplasia, Osseous	1 (2%)	1 (2%) 1 (2%) 1 (2%)	3 (6%) 2 (4%)	5 (10%)
Thrombosis Alveolar Epithelium, Hyperplasia	1 (2%) 2 (4%)	4 (8%) 2 (4%)	1 (2%) 1 (2%)	2 (4%)

a Number of animals examined microscopically at site and number of animals with lesion

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
SPECIAL SENSES SYSTEM				
Eye Inflammation, Chronic Cornea, Hyperplasia	(50) 3 (6%) 2 (4%)	(48) 3 (6%) 1 (2%)	(50)	(50)
Harderian Gland Cyst Hyperplasia, Focal	(50) 1 (2%)	(50) 1 (2%)	(50)	(49) 1 (2%) 1 (2%)
URINARY SYSTEM Kidney	(50)	(49)	(49)	(50)
Hydronephrosis Hyperplasia, Lymphoid Infarct	8 (16%)	9 (18%)	1 (2%) 6 (12%)	1 (2%) 8 (16%)
Metaplasia, Osseous Nephropathy	3 (6%) 14 (28%)	2 (4%) 1 (2%) 11 (22%)	4 (8%) 3 (6%) 14 (29%)	5 (10%) 2 (4%) 12 (24%)
Renal Tubule, Accumulation, Hyaline Droplet Renal Tubule, Dilatation Renal Tubule, Necrosis	2 (4%) 1 (2%) 1 (2%)	1 (2%)	2 (4%)	12 (2%) 1 (2%) 1 (2%) 1 (2%)
Renal Tubule, Pigmentation Transitional Epithelium, Hyperplasia	3 (6%) 1 (2%)	1 (2%)		1 (2%)
Urinary Bladder Hyperplasia, Lymphoid Transitional Epithelium, Hyperplasia	(49) 4 (8%)	(50) 12 (24%)	(50) 4 (8%) 1 (2%)	(50) 5 (10%)

a Number of animals examined microscopically at site and number of animals with lesion

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
DISPOSITION SUMMARY					
Animals Initially In Study	50	50	50	50	
Early Deaths	7	4	5	7	
Natural Death Moribund Sacrifice	, 5	4 5	5 4	10	
Survivors	J	3	4	10	
Terminal Sacrifice	38	41	41	33	
ICIMINAL DOCLARIO	• •				
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Intestine Large, Cecum	(47)	(49)	(49)	(48)	
Edema	1 (2%)	3 (6%)	4 (8%)	2 (4%)	
Inflammation, Chronic		1 (2%)		1 (2%)	
Intestine Small, Duodenum	(48)	(50)	(49)	(49)	
Ulcer		1 (2%)	1 (2%)		
Epithelium, Hyperplasia			1 (2%)	1 (2%)	
Intestine Small, Jejunum	(47)	(49)	(50)	(50)	
Epithelium, Hyperplasia	(42)	(40)	(40)	2 (4%)	
Intestine Small, Ileum	(47)	(49) 1 (2%)	(49)	(49)	
Cyst	(48)	1 (2%) (50)	(50)	(50)	
Liver	2 (4%)	2 (4%)	(30)	(30)	
Angiectasis Basophilic Focus	2 (40)	2 (4%)	3 (6%)	4 (8%)	
Clear Cell Focus	12 (25%)	19 (38%)	19 (38%)	13 (26%)	
Cyst	12 (230)	15 (300)	1 (2%)	1 (2%)	
Eosinophilic Focus	11 (23%)	10 (20%)	5 (10%)	11 (22%)	
Hematopoietic Cell Proliferation	1 (2%)	20 (200)	- (,	4 (8%)	
Hemorrhage	1 (2%)	1 (2%)		, , ,	
Hyperplasia, Lymphoid	` '	1 (2%)	1 (2%)		
Infarct			1 (2%)		
Infiltration Cellular, Mixed Cell	2 (4%)	1 (2%)	1 (2%)		
Mixed Cell Focus	2 (4%)	9 (18%)	8 (16%)	7 (14%)	
Necrosis, Focal	4 (8%)	6 (12%)	7 (14%)	6 (12%)	
Regeneration, Focal			1 (2%)		
Tension Lipidosis	1 (2%)		1 (2%)	0 (40)	
Bile Duct, Hyperplasia	4 (00)			2 (4%)	
Centrilobular, Necrosis	1 (2%)		1 (20.)	2 (4%)	
Hepatocyte, Karyomegaly	2 (18)		1 (2%)	1 (2%) 3 (6%)	
Hepatocyte, Vacuolization Cytoplasmic	2 (4%) 2 (4%)		1 (2%)	2 (00)	
Kupffer Cell, Pigmentation	۷ (46)		1 (26)		

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 96010-04

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)

Report: PEIRPT03

Date: 03/26/03

Time: 10:32:58

Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Route: DOSED WATER

B6C3F1 MICE MALE 0 MG/L 500 MG/L 1000MG/L 2000MG/L ALIMENTARY SYSTEM - CONT Mesentery (9) (10)(10)(8) Infarct 1 (10%) Inflammation, Chronic 1 (11%) 2 (25%) Fat. Necrosis 3 (33%) 8 (80%) 6 (60%) 5 (63%) Pancreas (48)(50) (50)(50) Cyst 2 (4%) Acinus, Cytoplasmic Alteration 1 (2%) 1 (2%) Salivary Glands (50) (50)(50) (50) Atrophy 1 (2%) 2 (4%) Hyperplasia, Lymphoid 7 (14%) 3 (6%) 6 (12%) 4 (8%) Stomach, Forestomach (49)(50)(50) (50)Cyst 2 (4%) Diverticulum 1 (2%) 1 (2%) 2 (4%) 1 (2%) 2 (4%) Erosion Inflammation, Chronic Active 2 (4%) 4 (8%) 2 (4%) Ulcer 1 (2%) 1 (2%) 2 (4%) 1 (2%) Epithelium, Hyperplasia 3 (6%) 7 (14%) 2 (4%) 4 (8%) Stomach, Glandular (48)(50)(50)(50)Cyst 1 (2%) 2 (4%) 1 (2%) Ulcer 1 (2%) Tooth (2) (4)(1) (3) Malformation 2 (100%) 4 (100%) 2 (67%) CARDIOVASCULAR SYSTEM Heart (50)(50)(50) (50)Cardiomyopathy 2 (4%) Inflammation, Chronic 2 (4%) 1 (2%) 1 (2%) 1 (2%) Mineralization 1 (2%) 2 (4%) Thrombosis 1 (2%) 1 (2%) ENDOCRINE SYSTEM Adrenal Cortex (50) (50)(50)(50)Accessory Adrenal Cortical Nodule 6 (12%) 5 (10%) 3 (6%) 5 (10%) Degeneration, Fatty 1 (2%) 1 (2%) 2 (4%) Hyperplasia, Focal 4 (8%) 6 (12%) 7 (14%) 9 (18%) Hypertrophy 1 (2%) Hypertrophy, Focal 9 (18%) 16 (32%) 11 (22%) 11 (22%) Capsule, Hyperplasia 5 (10%) 3 (6%) 1 (2%) 8 (16%) Adrenal Medulla (49)(48)(49)(49)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 96010-04 Study Type: CHRONIC

Route: DOSED WATER

Bone Marrow

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 03/26/03 Time: 10:32:58

B6C3F1 MICE MALE 0 MG/L 500 MG/L 1000MG/L 2000MG/L ENDOCRINE SYSTEM - CONT 1 (2%) 1 (2%) 1 (2%) Hyperplasia (50)Islets, Pancreatic (48)(50) (50)28 (56%) 25 (50%) 23 (46%) Hyperplasia 31 (65%) Parathyroid Gland (46)(48)(47)(49)1 (2%) 2 (4%) 1 (2%) Cyst Pituitary Gland (49)(47)(47)(45)1 (2%) 1 (2%) 2 (4%) 5 (10%) Pars Distalis, Cyst Pars Intermedia, Cyst 1 (2%) Thyroid Gland (48)(50)(48)(50)17 (34%) Degeneration, Cystic 13 (27%) 14 (29%) 15 (30%) Follicular Cell, Hypertrophy 2 (4%) 1 (2%) 2 (4%) GENERAL BODY SYSTEM None GENITAL SYSTEM (50) (50)(50)(50) Epididymis 4 (8%) 3 (6%) 1 (2%) 6 (12%) Atypia Cellular 1 (2%) Granuloma Sperm 1 (2%) 1 (2%) Inflammation, Chronic 1 (2%) 1 (2%) (50) (50) (50) (50) Preputial Gland 22 (44%) 26 (52%) 15 (30%) 29 (58%) Cyst 28 (56%) 27 (54%) 18 (36%) 21 (42%) Inflammation, Chronic (50) (50) (50)(50) Prostate 4 (8%) 3 (6%) 5 (10%) Inflammation, Chronic 1 (2%) (50) (50)Seminal Vesicle (50)(50)Degeneration 1 (2%) 2 (4%) 1 (2%) Dilatation 3 (6%) 1 (2%) Inflammation, Chronic (50) (50) (50) (50) Testes 1 (2%) Angiectasis 1 (2%) 1 (2%) 1 (2%) 1 (2%) Atrophy 1 (2%) Necrosis Germinal Epithelium, Atrophy 1 (2%) 5 (10%) 3 (6%) 4 (8%) HEMATOPOIETIC SYSTEM

(50)

(50)

(50)

(49)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 96010-04

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Study Type: CHRONIC Route: DOSED WATER

Report: PEIRPT03 Date: 03/26/03 Time: 10:32:58

B6C3F1 MICE MALE 0 MG/L 500 MG/L 1000MG/L 2000MG/L HEMATOPOIETIC SYSTEM - CONT Hyperplasia 21 (43%) 12 (24%) 13 (26%) 15 (30%) Lymph Node (3) (1)(3) Mediastinal, Hemorrhage 1 (33%) Lymph Node, Mandibular (49)(48)(45)(49)Atrophy 1 (2%) 1 (2%) Hyperplasia, Lymphoid 14 (29%) 14 (29%) 16 (36%) 16 (33%) Pigmentation 7 (14%) 10 (21%) 9 (20%) 9 (18%) Lymph Node, Mesenteric (47)(50) (50) (50)Atrophy 2 (4%) 1 (2%) 1 (2%) Hematopoietic Cell Proliferation 2 (4%) 4 (8%) 1 (2%) 4 (8%) Hemorrhage 4 (9%) 6 (12%) 2 (4%) Hyperplasia, Lymphoid 11 (23%) 6 (12%) 6 (12%) 9 (18%) (48)(50) (50) (50) Depletion Lymphoid 1 (2%) Hematopoietic Cell Proliferation 21 (44%) 17 (34%) 18 (36%) 21 (42%) Hyperplasia, Lymphoid 8 (17%) 9 (18%) 10 (20%) 8 (16%) Pigmentation 3 (6%) 1 (2%) 1 (2%) Lymphoid Follicle, Atrophy 1 (2%) 1 (2%) 3 (6%) Thymus (43)(43)(40)(44)Atrophy 11 (26%) 13 (30%) 4 (10%) 13 (30%) Cyst 1 (2%) 3 (7%) 4 (10%) 4 (9%) Hyperplasia, Lymphoid 2 (5%) 1 (2%) INTEGUMENTARY SYSTEM Skin (50) (50)(50)(50)Cyst Epithelial Inclusion 1 (2%) Edema 3 (6%) Inflammation, Chronic 1 (2%) 1 (2%) 2 (4%) Ulcer Epidermis, Hyperplasia 1 (2%) 1 (2%) MUSCULOSKELETAL SYSTEM Bone (50)(50)(50)(50)1 (2%) Fracture 1 (2%) 2 (4%) Hyperostosis 1 (2%) 1 (2%) Skeletal Muscle (3) (1)(3) (2) 1 (100%) Atrophy Infiltration Cellular, Lipocyte 1 (33%)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 96010-04 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT03 Date: 03/26/03 Time: 10:32:58

DCG2E1 MICE MALE 0 MC/I 500 MC/I 1000MC/I 2000MC/I

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
NERVOUS SYSTEM Peripheral Nerve Atrophy		(1) 1 (100%)	(2)	(1)	
RESPIRATORY SYSTEM					
Lung Edema Foreign Body Hemorrhage Hyperplasia, Lymphoid Infiltration Cellular, Histiocyte Metaplasia, Osseous Alveolar Epithelium, Hyperplasia Nose Foreign Body Inflammation, Chronic Respiratory Epithelium, Hyperplasia	(50) 6 (12%) 1 (2%) 5 (10%) 4 (8%) 8 (16%) 2 (4%) (50) 1 (2%) 1 (2%) 1 (2%)	(50) 11 (22%) 3 (6%) 5 (10%) 5 (10%) 2 (4%) 3 (6%) (50) 1 (2%) 2 (4%) 1 (2%)	(50) 7 (14%) 4 (8%) 7 (14%) 9 (18%) 1 (2%) (50) 1 (2%)	(50) 8 (16%) 1 (2%) 5 (10%) 6 (12%) 10 (20%) 5 (10%) (50) 2 (4%) 5 (10%)	
SPECIAL SENSES SYSTEM					
Eye Cataract Inflammation, Chronic Harderian Gland Hyperplasia, Focal Inflammation, Chronic	(49) (50) 1 (2%) 1 (2%)	(50) 1 (2%) (50) 3 (6%)	(50) 3 (6%) (50) 3 (6%)	(50) (49) 1 (2%) 2 (4%)	
URINARY SYSTEM					
Kidney Cyst Hydronephrosis Hyperplasia, Lymphoid Infarct Inflammation, Chronic Metaplasia, Osseous Nephropathy Renal Tubule, Accumulation, Hyaline Droplet	(49) 14 (29%) 1 (2%) 8 (16%) 5 (10%) 7 (14%) 37 (76%)	(50) 10 (20%) 2 (4%) 6 (12%) 1 (2%) 1 (2%) 5 (10%) 42 (84%) 1 (2%)	(50) 9 (18%) 2 (4%) 4 (8%) 4 (8%) 3 (6%) 43 (86%) 1 (2%)	(50) 10 (20%) 1 (2%) 11 (22%) 5 (10%) 1 (2%) 4 (8%) 36 (72%)	

a Number of animals examined microscopically at site and number of animals with lesion

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
URINARY SYSTEM - CONT				
Renal Tubule, Dilatation	1 (2%)	2 (4%)		3 (6%)
Renal Tubule, Hyperplasia	1 (2%)	1 (2%)		1 (2%)
Renal Tubule, Necrosis	1 (2%)	. ,		2 (4%)
Renal Tubule, Pigmentation		2 (4%)	1 (2%)	1 (2%)
Urethra		, ,	(1)	- ,,
Angiectasis			1 (100%)	1
Urinary Bladder	(49)	(50)	(50)	(50)
Edema	1 (2%)		• •	1 (2%)
Hyperplasia, Lymphoid	, ,	1 (2%)	1 (2%)	• •
Inflammation, Chronic		, ,	. ,,	1 (2%)
Transitional Epithelium, Hyperplasia		2 (4%)		1 (2%)

a Number of animals examined microscopically at site and number of animals with lesion

 END OF REPORT	

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Report: PEIRPT05 Study Type: CHRONIC Route: DOSED WATER WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Date: 03/26/03 Time: 10:40:52

FINAL#1/MICE

Facility: Southern Research Institute

Chemical CAS #: 7775-09-9

Lock Date: 10/16/01

Cage Range: All

Reasons For Removal: All A11 Removal Date Range:

Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Route: DOSED WATER					
B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
ISPOSITION SUMMARY					
Animals Initially in Study	50	50	50	50	
Early Deaths Natural Death Moribund Sacrifice Accidently Killed	10 3 1	10 5	12 6	7 8	
Survivors Terminal Sacrifice	36	34	31	35	
Moribund Sacrifice Other		1	1		
Animals Examined Microscopically	50	50	50	50	
Esophagus Gallbladder Intestine Large, Cecum Hemangioma	(49) (40) (44)	(50) (44) (47)	(50) (44) (47) 1 (2%)	(50) (48) (47)	
	(46)	(47) 1 (2%)		(50)	
Polyp Adenomatous Intestine Small, Jejunum	(45)	(47)	(47)	1 (2%) (47)	
Histiocytic Sarcoma Intestine Small, Ileum Liver	(42) (49)	(45) (50)	1 (2%) (46) (49)	(47) (50)	
Hemangioma Hemangiosarcoma Hemangiosarcoma, Metastatic, Spleen	2 (4%) 1 (2%)	2 (4%) 1 (2%)	(45)	(30)	
Hepatoblastoma Hepatocellular Carcinoma Hepatocellular Carcinoma, Multiple Hepatocellular Adenoma Hepatocellular Adenoma, Multiple Histiocytic Sarcoma	1 (2%) 2 (4%) 1 (2%) 15 (31%) 15 (31%)	6 (12%) 7 (14%) 9 (18%) 10 (20%)	11 (22%) 4 (8%) 14 (29%) 12 (24%) 1 (2%)	6 (12%) 3 (6%) 8 (16%) 15 (30%) 1 (2%)	
Mesentery Fibrosarcoma	(30)	(32)	(27) 1 (4%)	(24)	
Fibrous Histiocytoma Hemangiosarcoma Hepatocellular Carcinoma, Metastatic, Live Histiocytic Sarcoma	1 (3%) r		1 (4%)	1 (4%)	

Report: PEIRPT05

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Study Type: CHRONIC Route: DOSED WATER

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT05

Date: 03/26/03

Time: 10:40:52

B6C3F1 MICE FEMALE 0 MG/L 500 MG/L 1000MG/L 2000MG/L ALIMENTARY SYSTEM - cont Sarcoma, Metastatic, Skin 1 (4%) Schwannoma Malignant, Metastatic, Skin 1 (3%) Oral Mucosa (2) (1)Squamous Cell Carcinoma 1 (50%) Squamous Cell Papilloma 1 (100%) Pancreas (46)(47)(49)(48)Fibrosarcoma, Metastatic, Mesentery 1 (2%) Histiocytic Sarcoma 1 (2%) Sarcoma, Metastatic, Skin 1 (2%) Acinus, Sarcoma 1 (2%) Salivary Glands (48)(47)(49)(50)Hepatocellular Carcinoma, Metastatic, Liver 1 (2%) Histiocytic Sarcoma 1 (2%) Stomach, Forestomach (49)(50) (50)(49)Squamous Cell Carcinoma 1 (2%) 1 (2%) Squamous Cell Papilloma 1 (2%) 1 (2%) Squamous Cell Papilloma, Multiple 1 (2%) Stomach, Glandular (49)(48)(50)(49)Hepatocellular Carcinoma, Metastatic, Liver 1 (2%) Tongue (2) CARDIOVASCULAR SYSTEM Heart (49)(50) (49)(50)Hemangiosarcoma, Metastatic, Spleen 1 (2%) Hepatocellular Carcinoma, Metastatic, Liver 1 (2%) ENDOCRINE SYSTEM Adrenal Cortex (50) (49)(49)(50)Histiocytic Sarcoma 1 (2%) Osteosarcoma, Metastatic, Bone 1 (2%) Subcapsular, Adenoma 1 (2%) Adrenal Medulla (50)(49)(49)(50) Pheochromocytoma Malignant 2 (4%) Pheochromocytoma Complex 1 (2%) Pheochromocytoma Benign 1 (2%) 1 (2%) Islets, Pancreatic (47)(49)(49)(46)Adenoma 2 (4%) 2 (4%) 3 (6%) Carcinoma 1 (2%) Pituitary Gland (46)(45)(48)(50)

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Route: DOSED WATER					Report: PEIRPT09 Date: 03/26/03 Time: 10:40:52
B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
ENDOCRINE SYSTEM - cont Histiocytic Sarcoma Pars Distalis, Adenoma Thyroid Gland Follicular Cell, Adenoma	3 (7%) (48) 1 (2%)	2 (4 %) (50)	1 (2%) 4 (8%) (49)	4 (8%) (50)	
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Clitoral Gland Ovary Choriocarcinoma Cystadenoma Granulosa Cell Tumor Malignant Granulosa Cell Tumor Benign Histiocytic Sarcoma Luteoma Yolk Sac Carcinoma Uterus Hemangiosarcoma Histiocytic Sarcoma Leiomyosarcoma Polyp Stromal Yolk Sac Carcinoma, Metastatic, Ovary	(47) (45) 1 (2%) 1 (2%) 3 (7%) (50)	(47) (45) 4 (9%) 1 (2%) (50) 1 (2%)	(47) (47) 2 (48) 1 (28) 1 (28) 2 (48) 1 (28) (50) 2 (48) 1 (28)	(49) (50) 1 (2%) 1 (2%) 5 (10%) 1 (2%) 1 (2%) (50) 1 (2%) 3 (6%) 1 (2%)	
Bone Marrow Hemangiosarcoma Histiocytic Sarcoma Lymph Node Histiocytic Sarcoma Liposarcoma, Metastatic, Skin Iliac, Histiocytic Sarcoma Iliac, Liposarcoma, Metastatic, Skin Mediastinal, Sarcoma, Metastatic, Pancreas Pancreatic, Histiocytic Sarcoma Renal, Histiocytic Sarcoma	(50) 1 (2%) (7)	(50) 1 (2%) (5) 1 (20%) 1 (20%)	(50) 2 (4%) (11) 1 (9%) 2 (18%) 1 (9%) 1 (9%) 1 (9%)	(50) 1 (2%) (9) 1 (11%)	

tudy Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) oute: DOSED WATER					
B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000 M G/L	2000MG/L	
EMATOPOIETIC SYSTEM - cont					
Lymph Node, Mandibular Histiocytic Sarcoma	(46)	(46)	(49) 2 (4%)	(49)	
Squamous Cell Carcinoma, Metastatic, Uncertain Primary Site				1 (2%)	
Lymph Node, Mesenteric	(47)	(49)	(49)	(49)	
Histiocytic Sarcoma Histiocytic Sarcoma, Metastatic, Mesentery		1 (2%)	2 (4%) 1 (2%)		
Yolk Sac Carcinoma, Metastatic, Wesentery			1 (28)	1 (2%)	
Spleen	(49)	(48)	(49)	(50)	
Hemangiosarcoma Histiocytic Sarcoma	2 (4%)	1 (2%)	1 (2%) 2 (4%)		
Sarcoma, Metastatic, Skin				1 (2%)	
Thymus Hepatocellular Carcinoma, Metastatic, Liver	(48)	(44)	(48) 1 (2%)	(48)	
Histiocytic Sarcoma			1 (2%)	1 (2%)	
INTEGOMENTARY SYSTEM					
Mammary Gland Adenoma Carcinoma Skin Hemangioma	(50) (48)	(50) 1 (2%) (50) 1 (2%)	(50) 1 (2%) (50)	(50) (50)	
Mammary Gland Adenoma Carcinoma Skin Hemangioma Squamous Cell Carcinoma Subcutaneous Tissue, Fibrosarcoma	, ,	1 (2%) (50)	1 (2%)	(50)	
Mammary Gland Adenoma Carcinoma Skin Hemangioma Squamous Cell Carcinoma Subcutaneous Tissue, Fibrosarcoma Subcutaneous Tissue, Hemangioma Subcutaneous Tissue, Hemangiosarcoma Subcutaneous Tissue, Liposarcoma	, ,	1 (2%) (50) 1 (2%)	1 (2%) (50)	(50) 2 (4%) 1 (2%)	
Mammary Gland Adenoma Carcinoma Skin Hemangioma Squamous Cell Carcinoma Subcutaneous Tissue, Fibrosarcoma Subcutaneous Tissue, Hemangioma Subcutaneous Tissue, Hemangioma	, ,	1 (2%) (50) 1 (2%) 1 (2%)	1 (2%) (50) 1 (2%)	(50)	
Mammary Gland Adenoma Carcinoma Skin Hemangioma Squamous Cell Carcinoma Subcutaneous Tissue, Fibrosarcoma Subcutaneous Tissue, Hemangioma Subcutaneous Tissue, Hemangiosarcoma Subcutaneous Tissue, Liposarcoma Subcutaneous Tissue, Sarcoma Subcutaneous Tissue, Schwannoma Malignant	(48)	1 (2%) (50) 1 (2%) 1 (2%) 1 (2%)	1 (2%) (50) 1 (2%)	(50) 2 (4%) 1 (2%)	
Mammary Gland Adenoma Carcinoma Skin Hemangioma Squamous Cell Carcinoma Subcutaneous Tissue, Fibrosarcoma Subcutaneous Tissue, Hemangioma Subcutaneous Tissue, Hemangiosarcoma Subcutaneous Tissue, Liposarcoma Subcutaneous Tissue, Sarcoma Subcutaneous Tissue, Schwannoma Malignant MUSCULOSKELETAL SYSTEM Bone Osteosarcoma	(48)	1 (2%) (50) 1 (2%) 1 (2%) 1 (2%)	1 (2%) (50) 1 (2%) (50) 1 (2%)	(50) 2 (4%) 1 (2%)	
Mammary Gland Adenoma Carcinoma Skin Hemangioma Squamous Cell Carcinoma Subcutaneous Tissue, Fibrosarcoma Subcutaneous Tissue, Hemangioma Subcutaneous Tissue, Hemangiosarcoma Subcutaneous Tissue, Liposarcoma Subcutaneous Tissue, Sarcoma Subcutaneous Tissue, Sarcoma Subcutaneous Tissue, Sarcoma Subcutaneous Tissue, Schwannoma Malignant MUSCULOSKELETAL SYSTEM Bone Osteosarcoma Sarcoma Skeletal Muscle	(48)	1 (2%) (50) 1 (2%) 1 (2%) 1 (2%) 1 (2%)	1 (2%) (50) 1 (2%) 1 (2%) (50) 1 (2%) 1 (2%) (4)	(50) 2 (4%) 1 (2%) 1 (2%) 1 (2%)	
Adenoma Carcinoma Skin Hemangioma Squamous Cell Carcinoma Subcutaneous Tissue, Fibrosarcoma Subcutaneous Tissue, Hemangioma Subcutaneous Tissue, Hemangiosarcoma Subcutaneous Tissue, Liposarcoma Subcutaneous Tissue, Sarcoma Subcutaneous Tissue, Schwannoma Malignant MUSCULOSKELETAL SYSTEM Bone Osteosarcoma Sarcoma	(48)	1 (2%) (50) 1 (2%) 1 (2%) 1 (2%) (50) 1 (2%)	1 (2%) (50) 1 (2%) (50) 1 (2%) 1 (2%) 1 (2%)	(50) 2 (4%) 1 (2%) 1 (2%) 1 (2%) (50) 2 (4%)	

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHOOLE WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) Route: DOSED WATER					Report: PEIRPT05 Date: 03/26/03 Time: 10:40:52
B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
AUSCULOSKELETAL SYSTEM - cont Yolk Sac Carcinoma, Metastatic, Ovary				1 (17%)	
NERVOUS SYSTEM					
Brain Osteosarcoma, Metastatic, Bone	(50)	(50)	(50) 1 (2%)	(50)	
RESPIRATORY SYSTEM					
Lung Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma Alveolar/Bronchiolar Carcinoma, Multiple Hepatocellular Carcinoma, Metastatic, Liver Histiocytic Sarcoma Liposarcoma, Metastatic, Skin Osteosarcoma, Metastatic, Bone Sarcoma, Metastatic, Skin Nose Carcinoma Histiocytic Sarcoma	(50) 3 (6%) 1 (2%) 1 (2%) (50) 1 (2%)	(50) 1 (2%) 1 (2%) 3 (6%) 1 (2%)	(49) 1 (2%) 1 (2%) 5 (10%) 1 (2%) 1 (2%) (50) 1 (2%)	(50) 3 (6%) 1 (2%) 2 (4%) 1 (2%) 1 (2%) (50)	
SPECIAL SENSES SYSTEM	.=	(10)	(50)	(50)	
Eye Harderian Gland Adenoma Carcinoma	(50) (50) 11 (22%) 1 (2%)	(48) (50) 9 (18%) 1 (2%)	(50) (50) 5 (10%)	(50) (49) 6 (12%)	
Histiocytic Sarcoma	1 (2%)	1 (20)	1 (2%)		
URINARY SYSTEM					
Kidney Hepatocellular Carcinoma, Metastatic, Liver Histiocytic Sarcoma Osteosarcoma, Metastatic, Bone	(50)	(49)	(49) 1 (2%) 1 (2%) 1 (2%)	(50)	
Urinary Bladder	(49)	(50)	(50)	(50)	

Report: PEIRPT05

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC ROUTE: DOSED WATER

ROUTE: DOSED WATER Report: PEIRPT05 Date: 03/26/03 Time: 10:40:52

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
SYSTEMIC LESIONS Multiple Organs	*(50)	* (50)	*(50)	* (50)
Histiocytic Sarcoma Leukemia Granulocytic Lymphoma Malignant	23 (46%)	1 (2%) 19 (38%)	4 (8%) 1 (2%) 28 (56%)	2 (4%) 27 (54%)

^{*} Number of animals with any tissue examined microscopically

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT05

Date: 03/26/03

Time: 10:40:52

B6C3F1 MICE FEMALE 0 MG/L 500 MG/L 1000MG/L 2000MG/L TUMOR SUMMARY Total Animals with Primary Neoplasms (b) 47 46 105 99 87 108 Total Primary Neoplasms Total Animals with Benign Neoplasms 38 27 33 31 Total Benign Neoplasms 58 40 53 Total Animals with Malignant Neoplasms 33 38 41 41 Total Malignant Neoplasms 41 47 64 52 Total Animals with Metastatic Neoplasms 2 10 5 Total Metastatic Neoplasm 20 11 1 Total Animals with Malignant Neoplasms Uncertain Primary Site Total Animals with Neoplasms Uncertain-Benign or Malignant Total Uncertain Neoplasms

Route: DOSED WATER

a Number of animals examined microscopically at site and number of animals with lesion

b Primary tumors: all tumors except metastatic tumors

tudy Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) oute: DOSED WATER					Date: 03/26/03 Time: 10:40:52
B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
ISPOSITION SUMMARY					
Animals Initially in Study Early Deaths	50	50	50	50	
Natural Death Moribund Sacrifice	7 5	<u>4</u> 5	5 4	7 10	
Survivors Terminal Sacrifice	38	41	41	33	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Intestine Large, Colon Histiocytic Sarcoma, Metastatic, Liver	(48) 1 (2%)	(50)	(50)	(50)	
Intestine Large, Cecum Carcinoma Histiocytic Sarcoma	(47)	(49)	(49)	(48) 1 (2%) 1 (2%)	
Histiocytic Sarcoma, Metastatic, Liver Intestine Small, Duodenum Adenoma	1 (2%) (48) 1 (2%)	(50)	(49)	(49)	
Carcinoma Carcinoma, Metastatic, Islets, Pancreatic Polyp Adenomatous	1 (8%)		2 (4%)	1 (2%) 1 (2%)	
Intestine Small, Jejunum Adenoma	(47)	(49)	(50) 1 (2%)	(50) 1 (2%)	
Carcinoma Liver Carcinoma, Metastatic, Islets, Pancreatic	2 (4%) (48)	2 (4%) (50)	(50)	2 (4%) (50) 1 (2%)	
Cholangiocarcinoma Hemangioma	1 (2%)		1 (2%) 1 (2%)		
Hemangiosarcoma Hemangiosarcoma, Metastatic, Spleen Hepatoblastoma	1 (2%) 5 (10%)	2 (4%) 3 (6%)	1 (2%) 1 (2%) 1 (2%)	2 (4%) * 3 (6%)	
Hepatoblastoma, Multiple Hepatocellular Carcinoma	1 (2%) 14 (29%)	13 (26%)	14 (28%)	12 (24%)	
Hepatocellular Carcinoma, Multiple Hepatocellular Adenoma	6 (13%) 16 (33%)	1 (2%) 15 (30%)	5 (10%) 13 (26%)	1 (2%) 14 (28%)	
Hepatocellular Adenoma, Multiple Histiocytic Sarcoma Ito Cell Tumor Malignant	14 (29%) 1 (2%)	17 (34%) 1 (2%)	23 (46%) 2 (4%)	16 (32%) 2 (4%)	
Leiomyosarcoma, Metastatic, Mesentery	1 (2%)				

TTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE) soute: DOSED WATER					Report: PEIRPTO Date: 03/26/03 Time: 10:40:52
B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
IMENTARY SYSTEM - cont					
Mesentery	(9)	(10)	(10)	(8)	
Cholangiocarcinoma, Metastatic, Liver	1 (11%)				
Hepatocellular Carcinoma, Metastatic, Liver			1 (10%)	1 (13%)	
Histiocytic Sarcoma	4 (440)			2 (25%)	
Histiocytic Sarcoma, Metastatic, Liver	1 (11%)	1 (100)			
Ito Cell Tumor Malignant, Metastatic, Liver	1 (119)	1 (10%)			
Leiomyosarcoma Liposarcoma	1 (11%)		1 (10%)		
Pancreas	(48)	(50)	(50)	(50)	
Cholangiocarcinoma, Metastatic, Liver	1 (2%)	(50)	(30)	(30)	
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)		1 (2%)		
Histiocytic Sarcoma, Metastatic, Liver	1 (2%)		_ (_ , ,		
Salivary Glands	(50)	(50)	(50)	(50)	
Histiocytic Sarcoma	` .			1 (2%)	
Stomach, Forestomach	(49)	(50)	(50)	(50)	
Leiomyosarcoma, Metastatic, Mesentery	1 (2%)				
Squamous Cell Papilloma			2 (4%)	2 (4%)	
Stomach, Glandular	(48)	(50)	(50)	(50)	
Adenoma	1 (00)	2 (4%)			
Histiocytic Sarcoma, Metastatic, Liver Leiomyosarcoma, Metastatic, Mesentery	1 (2%) 1 (2%)				
ARDIOVASCULAR SYSTEM					
Heart	(50)	(50)	(50)	(50)	
Cholangiocarcinoma, Metastatic, Liver	1 (2%)	(30)	(30)	(30)	
NDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Adenoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
Hepatocellular Carcinoma, Metastatic, Liver	_ (_0)	_ (_ 0)	- \- \	1 (2%)	
Bilateral, Subcapsular, Adenoma	1 (2%)			• •	
Subcapsular, Adenoma	1 (2%)	3 (6%)	4 (8%)	2 (4%)	
Islets, Pancreatic	(48)	(50)	(50)	(50)	
Adenoma	1 (2%)			1 (2%)	
Carcinoma				1 (2%)	
Pituitary Gland	(47)	(47)	(45)	(49)	
Pars Distalis, Adenoma		1 (2%)			

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a) Study Type: CHRONIC

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT05 Date: 03/26/03

Time: 10:40:52 Route: DOSED WATER 0 MG/L 500 MG/L 1000MG/L 2000MG/L B6C3F1 MICE MALE GENERAL BODY SYSTEM None GENITAL SYSTEM (50) (50)Epididymis (50)(50) 1 (2%) Cholangiocarcinoma, Metastatic, Liver 1 (2%) Histiocytic Sarcoma, Metastatic, Liver (50) (50)(50)(50)(50)Seminal Vesicle (50) (50)(50)Histiocytic Sarcoma, Metastatic, Liver 1 (2%) (50) (50)(50)(50)2 (4%) Interstitial Cell, Adenoma HEMATOPOIETIC SYSTEM (50) (50)Bone Marrow (49)(50)1 (2%) Hemangiosarcoma, Metastatic, Spleen 1 (2%) Histiocytic Sarcoma (1) Lymph Node (3) (3) Mediastinal, Carcinoma, Metastatic, Harderian Gland 1 (33%) Mediastinal, Hepatocellular Carcinoma, 1 (100%) 1 (33%) Metastatic, Liver Mediastinal, Histiocytic Sarcoma, Metastatic, 1 (33%) Liver Mediastinal, Leiomyosarcoma, Metastatic, Mesentery 1 (33%) Pancreatic, Hepatocellular Carcinoma, 1 (100%) Metastatic, Liver Pancreatic, Histiocytic Sarcoma, Metastatic, 1 (33%) Liver Renal, Hepatocellular Carcinoma, Metastatic, Liver 1 (100%) Renal, Histiocytic Sarcoma, Metastatic, Liver 1 (33%) Renal, Leiomyosarcoma, Metastatic, Mesentery 1 (33%) (49)Lymph Node, Mandibular (49)(48)(45)1 (2%) Histiocytic Sarcoma (47)Lymph Node, Mesenteric (50)(50)(50)Hepatocellular Carcinoma, Metastatic, Liver 1 (2%)

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
	,		2000110, 2	2000113, 2	
EMATOPOIETIC SYSTEM - cont					
Histiocytic Sarcoma				1 (2%)	
Leiomyosarcoma, Metastatic, Mesentery	1 (2%)				
Spleen	(48)	(50)	(50)	(50)	
Hemangiosarcoma			1 (2%)		
Histiocytic Sarcoma			1 (2%)	1 (2%)	
Histiocytic Sarcoma, Metastatic, Liver	1 (2%)				
Leiomyosarcoma, Metastatic, Mesentery	1 (2%)				
Thymus	(43)	(43)	(40)	(44)	
Alveolar/Bronchiolar Carcinoma, Metastatic,					
Lung			1 (3%)		
Hepatocellular Carcinoma, Metastatic, Liver			1 (3%)		
Leiomyosarcoma, Metastatic, Mesentery	1 (2%)				-
INTEGUMENTARY SYSTEM					
Skin	(50)	(50)	(50)	(50)	
Subcutaneous Tissue, Fibrous Histiocytoma	, ,	, ,	1 (2%)	(,	
Subcutaneous Tissue, Lipoma			1 (2%)		
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Carcinoma, Metastatic, Harderian Gland			1 (2%)		
Skeletal Muscle	(3)	(1)	(3)	(2)	
Alveolar/Bronchiolar Carcinoma, Metastatic,					
Lung			2 (67%)		
Hepatocellular Carcinoma, Metastatic, Liver				1 (50%)	
Histiocytic Sarcoma, Metastatic, Liver	1 (33%)				
Leiomyosarcoma, Metastatic, Mesentery	1 (33%)				
Rhabdomyosarcoma				1 (50%)	

None

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)
Route: DOSED WATER

0 MG/L 500 MG/L 1000MG/L 2000MG/L B6C3F1 MICE MALE RESPIRATORY SYSTEM (50) (50) (50) (50)Lung 6 (12%) 4 (8%) 7 (14%) 6 (12%) Alveolar/Bronchiolar Adenoma 5 (10%) 6 (12%) 4 (8%) Alveolar/Bronchiolar Carcinoma 4 (8%) Alveolar/Bronchiolar Carcinoma, Multiple 1 (2%) Carcinoma, Metastatic, Harderian Gland 1 (2%) 1 (2%) Carcinoma, Metastatic, Kidney 1 (2%) Hemangiosarcoma 1 (2%) 2 (4%) Hepatoblastoma, Metastatic, Liver 9 (18%) 2 (4%) 4 (8%) 6 (12%) Hepatocellular Carcinoma, Metastatic, Liver 1 (2%) 1 (2%) Histiocytic Sarcoma 1 (2%) Histiocytic Sarcoma, Metastatic, Liver Leiomyosarcoma, Metastatic, Mesentery 1 (2%) SPECIAL SENSES SYSTEM (49)(50)(50) (50)Harderian Gland 6 (12%) 4 (8%) 4 (8%) 6 (12%) Adenoma 1 (2%) 1 (2%) Carcinoma URINARY SYSTEM (50) (50) (50)Kidney (49)Alveolar/Bronchiolar Carcinoma, Metastatic, 1 (2%) Hepatocellular Carcinoma, Metastatic, Liver 1 (2%) 1 (2%) Renal Tubule, Adenoma 1 (2%) Renal Tubule, Carcinoma SYSTEMIC LESIONS * (50) * (50) * (50) * (50) Multiple Organs 3 (6%) 1 (2%) 2 (4%) Histiocytic Sarcoma 3 (6%) 3 (6%) Lymphoma Malignant 1 (2%)

Report: PEIRPT05 Date: 03/26/03

Time: 10:40:52

^{*} Number of animals with any tissue examined microscopically

NTP Experiment-Test: 96010-04 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Study Type: CHRONIC WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)
Route: DOSED WATER

Time: 10:40:52 B6C3F1 MICE MALE 0 MG/L 500 MG/L 1000MG/L 2000MG/L TUMOR SUMMARY Total Animals with Primary Neoplasms (b) 45 45 47 45 Total Primary Neoplasms 86 76 95 87 Total Animals with Benign Neoplasms 34 38 37 34 Total Benign Neoplasms 47 48 59 51 Total Animals with Malignant Neoplasms 29 22 30 27 Total Malignant Neoplasms 39 28 36 36 Total Animals with Metastatic Neoplasms 12 5 8 Total Metastatic Neoplasm 38 20 14

Report: PEIRPT05

Date: 03/26/03

Total Animals with Malignant Neoplasms Uncertain Primary Site

Total Animals with Neoplasms Uncertain-Benign or Malignant Total Uncertain Neoplasms

a Number of animals examined microscopically at site and number of animals with lesion

b Primary tumors: all tumors except metastatic tumors

 END	OF	REPORT	

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Date: 03/26/03 Time: 10:48:04

Report: PEIRPT18

FINAL#1/MICE

Facility: Southern Research Institute

Chemical CAS #: 7775-09-9

Lock Date: 10/16/01

Cage Range: All

Reasons For Removal: All

Removal Date Range: A11

Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

NTP Experiment-Test: 96010-04 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 03/26/03

Time: 10:48:04

		111 10.10.01			
B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
DISPOSITION SUMMARY					
Animals Initially In Study	50	50	50	50	
Early Deaths Natural Death	10	10	12	7	
Moribund Sacrifice	3	5	6	8	
Accidently Killed	1	J	Ü	•	
Survivors					
Terminal Sacrifice	36	34	31	35	
Moribund Sacrifice		1			
Other			1		
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Intestine Large, Colon	(48)	(49)	(48)	(49)	
Hemorrhage	1 [3.0]	(40)	4.453	(45)	
Intestine Large, Cecum Edema	(44) 4 [2.0]	(47) 6 [2.0]	(47) 6 [2.2]	(47) 6 [1.8]	
Hemorrhage	1 [4.0]	0 [2.0]	0 [2.2]	0 [1.8]	
Inflammation, Chronic	T (4:0)		1 [3.0]		
Ulcer			1 [3.0]		
Intestine Small, Duodenum	(46)	(47)	(47)	(50)	
Ulcer		1 [4.0]	1 [2.0]		
Epithelium, Hyperplasia			2 [2.5]		
Intestine Small, Ileum	(42)	(45)	(46)	(47)	
Inflammation, Chronic Epithelium, Hyperplasia			1 [2.0] 1 [2.0]	1 [3.0] 1 [2.0]	
Liver	(49)	(50)	(49)	(50)	
Angiectasis	2 [2.0]	(30)	2 [3.5]	1 [3.0]	
Basophilic Focus	5		4	1	
Clear Cell Focus	3		1		
Eosinophilic Focus	9	9	13	7	
Hematopoietic Cell Proliferation	7 [2.1]	4 [2.5]	3 [2.7]	8 [2.3]	
Hemorrhage		1	1 [2.0]		
Hepatodiaphragmatic Nodule Hyperplasia, Lymphoid	4 [2.0]	1 7 [2.1]	3 [2.0]	5 [2.0]	
нурегріазіа, Бутрпоіd Infarct	4 [2.0]	1 [3.0]	3 [2.0]	0 [2.0]	
Infiltration Cellular, Mixed Cell	7 [1.9]	7 [1.6]	8 [1.9]	7 [2.1]	
Mixed Cell Focus	7	2	3	3	
Necrosis, Focal	5 [1.8]	1 [1.0]	4 [2.0]	1 [3.0]	
Tension Lipidosis	2	3		1	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 03/26/03

Time: 10:48:04

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
ALIMENTARY SYSTEM - CONT				
Centrilobular, Necrosis	2 [2.5]	2 [3.5]	2 [2.5]	2 [3.0]
Hepatocyte, Karyomegaly	4 10 01			3 [2.3]
Hepatocyte, Vacuolization Cytoplasmic Kupffer Cell, Hyperplasia	4 [3.3]	3 [3.3]	6 [3.0]	4 [3.5]
Kupffer Cell, Pigmentation	3 [2.0]	1 [3.0] 4 [2.3]	1 [2.0] 4 [1.8]	2 [3.0] 7 [2.3]
Mesentery	(30)	(32)	(27)	(24)
Angiectasis	1 [3.0]	(32)	(27)	1 [3.0]
Hemorrhage	1 [4.0]			1 [3:0]
Inflammation, Chronic	1 (1.0)			1 [3.0]
Fat, Necrosis	21 [3.0]	24 [3.1]	20 [3.6]	16 [3.3]
Pancreas	(46)	(47)	(49)	(48)
Atrophy	2 [2.5]	1 [4.0]		1 [1.0]
Cyst		1 [3.0]	1 [3.0]	
Acinus, Hyperplasia, Focal				1 [2.0]
Salivary Glands	(48)	(47)	(49)	(50)
Hyperplasia, Lymphoid	16 [2.3]	21 [2.2]	15 [2.4]	18 [2.3]
Stomach, Forestomach Diverticulum	(49)	(50)	(50)	(49)
Edema	2	1	1 3 [2.7]	2
Erosion		1 [2.0]	2 [2.5]	2 [1.5]
Hyperplasia	1 [1.0]	1 [2.0]	2 (2.5)	2 [1.3]
Inflammation, Chronic Active	1 (1.0)		2 [1.5]	2 [2.0]
Ulcer	2 [2.5]		3 [2.3]	3 [2.3]
Epithelium, Hyperplasia	3 [2.3]	4 [2.0]	9 [2.4]	6 [2.2]
Stomach, Glandular	(49)	(48)	(50)	(49)
Erosion		1 [3.0]	2 [2.5]	
Ulcer			1 [3.0]	
CARDIOVASCULAR SYSTEM				
Blood Vessel	(1)	(3)		(1)
Aorta, Mineralization	440)	1 [4.0]		
Heart	(49)	(50)	(49)	(50)
Cardiomyopathy Mineralization	1 [2.0] 1 [2.0]	1 [2.0]	1 [2.0]	3 (3 E)
MINETALIZACION	1 [2.0]		1 [2.0]	2 [3.5]
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(49)	(49)	(50)
Accessory Adrenal Cortical Nodule	4 [3.0]	2 [3.0]	7 [3.0]	7 [3.0]
Hyperplasia, Focal			1 [2.0]	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 96010-04 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 03/26/03 Time: 10:48:04

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
ENDOCRINE SYSTEM - CONT				
Capsule, Hyperplasia			1 [2.0]	2 [2.0]
Zona Reticularis, Vacuolization Cytoplasmic			1 [3.0]	1 [3.0]
Adrenal Medulla	(50)	(49)	(49)	(50)
Hyperplasia	2 [1.0]		2 [1.5]	1 [1.0]
Islets, Pancreatic	(46)	(47)	(49)	(49)
Hyperplasia	9 [1.7]	6 [2.0]	4 [2.3]	3 [2.0]
Parathyroid Gland	(45)	(47)	(48)	(47)
Cyst	1 [2.0]	1 [3.0]	2 [2.5]	2 [3.0]
Pituitary Gland	(46)	(45)	(48)	(50)
Pars Distalis, Angiectasis	1 [1.0]	2 [2.5]	2 [1.5]	
Pars Distalis, Cyst				1 [3.0]
Pars Distalis, Hyperplasia, Focal	3 [1.7]	3 [2.3]	3 [2.7]	1 [3.0]
Thyroid Gland	(48)	(50)	(49)	(50)
Degeneration, Cystic	25 [2.3]	28 [2.1]	34 [2.5]	32 [2.3]
Follicle, Cyst	1	1		1
Follicular Cell, Cyst				2
Follicular Cell, Hypertrophy	3 [1.3]	2 [2.0]	5 [1.0]	14 [1.4]
None				
GENITAL SYSTEM				
Clitoral Gland	(47)	(47)	(47)	(49)
Inflammation, Chronic	, ,	2 [2.0]	· ,	4 [2.3]
Ovary	(45)	(45)	(47)	(50)
Angiectasis	3 [3.0]	2 [3.0]	4 [2.5]	3 [2.7]
Cyst	9	14	14	13
Cyst, Hemorrhagic	1			
Hemorrhage	1 [2.0]			
Thrombosis	3	1	1	
Bilateral, Cyst		1		
Follicle, Hemorrhage	1 [2.0]	4 [3.0]	4 [2.3]	9 [2.2]
Granulosa Cell, Hyperplasia			3 [2.7]	7 [2.6]
Uterus	(50)	(50)	(50)	(50)
Angiectasis	1 [2.0]		2 [3.5]	1 [4.0]
Hyperplasia, Atypical		1 [3.0]	40 10 4	
Hyperplasia, Cystic	45 [3.1]	1 [3.0] 45 [3.2]	40 [3.1]	41 [3.1]
	45 [3.1] 1 [4.0]		40 [3.1] 2 [2.5]	41 [3.1]

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18 Date: 03/26/03 Time: 10:48:04

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000 M G/L	
GENITAL SYSTEM - CONT					
Metaplasia, Squamous Endometrium, Hyperplasia, Atypical		2 [2.5] 1 [2.0]	1 [2.0]		
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Hyperplasia	14 [2.4]	28 [2.6]	29 [2.9]	31 [2.7]	
Myelofibrosis	1 [3.0]	2 [3.5]	1 [4.0]	2 [2.0]	
Lymph Node	(7)	(5)	(11)	(9)	
Iliac, Hemorrhage			1 [3.0]		
Iliac, Hyperplasia, Lymphoid	1 [3.0]			1 [3.0]	
Mediastinal, Hyperplasia, Lymphoid	1 [3.0]	1 [3.0]	2 [3.5]		
Mediastinal, Pigmentation	1 [2.0]				
Pancreatic, Hemorrhage				1 [4.0]	
Renal, Hemorrhage	1 [4.0]			1 [3.0]	
Lymph Node, Mandibular	(46)	(46)	(49)	(49)	
Atrophy		1 [3.0]		1 [3.0]	
Hematopoietic Cell Proliferation		1 [2.0]	1 [2.0]	1 [2.0]	
Hyperplasia, Lymphoid	12 [2.7]	7 [2.4]	7 [2.3]	10 [2.8]	
Pigmentation	18 [2.4]	16 [2.6]	18 [2.2]	15 [2.3]	
Lymph Node, Mesenteric	(47)	(49)	(49)	(49)	
Atrophy	1 [3.0]	1 [3.0]		2 [2.5]	
Ectasia	2 [3.0]			1 [3.0]	
Hematopoietic Cell Proliferation	2 [2.0]	2 [2.5]	1 [2.0]	2 [2.0]	
Hemorrhage	4 [3.3]	2 [4.0]		1 [2.0]	
Hyperplasia, Lymphoid	10 [2.6]	8 [2.1]	11 [2.8]	6 [2.5]	
Pigmentation	1 [2.0]	2 [2.5]			
Spleen	(49)	(48)	(49)	(50)	
Accessory Spleen				1	
Hematopoietic Cell Proliferation	39 [2.5]	39 [2.8]	35 [2.8]	39 [2.8]	
Hyperplasia, Lymphoid	11 [2.6]	10 [2.3]	5 [3.0]	9 [2.4]	
Pigmentation	28 [2.4]	30 [2.6]	28 [2.6]	27 [2.6]	
Lymphoid Follicle, Atrophy	1 [3.0]	2 [2.5]	1 [3.0]	2 [3.0]	
Thymus	(48)	(44)	(48)	(48)	
Atrophy	5 [3.0]	7 [2.9]	5 [3.0]	9 [2.9]	
Cyst	3 [3.0]		1 [3.0]	1 [3.0]	
Hyperplasia, Lymphoid	5 [2.8]	3 [2.7]	4 [3.0]	2 [2.0]	
INTEGUMENTARY SYSTEM					
Mammary Gland	(50)	(50)	(50)	(50)	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

NTP Experiment-Test: 96010-04 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 03/26/03

Time: 10:48:04

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
INTEGUMENTARY SYSTEM - CONT Hyperplasia Skin Edema Epidermis, Hyperplasia Subcutaneous Tissue, Edema	5 [1.4] (48) 1 [2.0]	11 [1.5] (50) 1 [3.0]	8 [1.9] (50) 1 [4.0]	10 [1.4] (50) 1 [3.0] 1 [4.0] 2 [2.0]
MUSCULOSKELETAL SYSTEM				
Bone Callus Fracture Hyperostosis Cranium, Osteopetrosis Femur, Osteopetrosis Skeletal Muscle Angiectasis Atrophy	(50) 1 [4.0] 1 [3.0]	(50) 1 [2.0] 1 [2.0] (2)	(50) 1 4 [2.0] 1 [3.0] 1 [3.0] (4)	(50) 1 3 [2.0] (6) 1 [3.0] 1 [1.0]
NERVOUS SYSTEM				
Brain Compression Inflammation, Chronic Necrosis Peripheral Nerve Atrophy	(50) 1 [4.0]	(50)	(50) 1 [3.0] 1 [2.0] (2) 1 [2.0]	(50) 1 [4.0] 1 [2.0] 1 [3.0] (2) 2 [1.5]
RESPIRATORY SYSTEM				
Lung Edema Foreign Body Hemorrhage Hyperplasia, Lymphoid Infiltration Cellular, Polymorphonuclear Infiltration Cellular, Histiocyte Metaplasia, Osseous Thrombosis Alveolar Epithelium, Hyperplasia	(50) 5 [2.0] 2 5 [1.4] 10 [2.0] 1 [2.0] 1 [2.0] 2 [2.0]	(50) 8 [2.1] 8 [2.1] 1 [3.0] 1 [4.0] 1 [1.0] 4 [2.3] 2 [1.5]	(49) 3 [2.0] 6 [2.0] 3 [2.3] 3 [2.3] 2 [1.0] 1 [3.0] 1 [1.0]	(50) 5 [2.0] 4 [2.3] 9 [2.1] 5 [2.0]

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 03/26/03 Time: 10:48:04

B6C3F1 MICE FEMALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
SPECIAL SENSES SYSTEM				
Eye Inflammation, Chronic Cornea, Hyperplasia	(50) 3 [2.3] 2 [3.0]	(48) 3 [2.3] 1 [2.0]	(50)	(50)
Harderian Gland	(50)	(50)	(50)	(49)
Cyst Hyperplasia, Focal	1 [2.0]	1 [1.0]		1 [3.0] 1 [2.0]
URINARY SYSTEM				
Kidney	(50)	(49)	(49)	(50)
Hydronephrosis	0 (0 ()	0 10 11	1 [3.0]	1 [3.0]
Hyperplasia, Lymphoid Infarct	8 [2.1] 3 [2.0]	9 [2.1] 2 [2.5]	6 [2.2] 4 [1.8]	8 [2.1] 5 [1.8]
Metaplasia, Osseous	3 (2.0)	1 [1.0]	3 [1.3]	2 [1.5]
Nephropathy	14 [1.3]	11 [1.4]	14 [1.6]	12 [1.4]
Renal Tubule, Accumulation, Hyaline Droplet	2 [2.5]	1 [2.0]	2 [2.5]	1 [3.0]
Renal Tubule, Dilatation	1 [3.0]			1 [3.0]
Renal Tubule, Necrosis Renal Tubule, Pigmentation	1 [3.0] 3 [2.3]	1 (2 0)		1 [3.0] 1 [2.0]
Transitional Epithelium, Hyperplasia	1 [1.0]	1 [2.0]		1 (2.0)
Urinary Bladder	(49)	(50)	(50)	(50)
Hyperplasia, Lymphoid Transitional Epithelium, Hyperplasia	4 [2.0]	12 [2.4]	4 [2.0] 1 [3.0]	5 [2.0]

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 03/26/03

Time: 10:48:04

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
DISPOSITION SUMMARY				
Animals Initially In Study Early Deaths	50	50	50	50
Natural Death	7	4	5	7
Moribund Sacrifice	5	5	4	10
Survivors				
Terminal Sacrifice	38	41	41	33
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Cecum	(47)	(49)	(49)	(48)
Edema	1 [2.0]	3 [2.0]	4 [2.0]	2 [2.0]
Inflammation, Chronic		1 [3.0]		1 [2.0]
Intestine Small, Duodenum	(48)	(50)	(49)	(49)
Ulcer		1 [2.0]	1 [4.0]	1 [2 0]
Epithelium, Hyperplasia Intestine Small, Jejunum	(47)	(49)	1 [2.0] (50)	1 [3.0] (50)
Epithelium, Hyperplasia	(4/)	(4)	(50)	2 [2.5]
Intestine Small, Ileum	(47)	(49)	(49)	(49)
Cyst	(-//	1 [3.0]	(== /	(23 /
Liver	(48)	(50)	(50)	(50)
Angiectasis	2 [2.5]	2 [1.5]		
Basophilic Focus		2	3	4
Clear Cell Focus	12	19	19	13
Cyst	1.1	10	1 [2.5]	1 [3.0]
Eosinophilic Focus Hematopoietic Cell Proliferation	11 1 [3.0]	10	5	11 4 [2.0]
Hemorrhage	1 [3.0]	1 [2.0]		4 [2.0]
Hyperplasia, Lymphoid	1 (5.0)	1 [2.0]	1 [2.0]	
Infarct		- ()	1 [2.0]	
Infiltration Cellular, Mixed Cell	2 [1.5]	1 [2.0]	1 [1.0]	
Mixed Cell Focus	2	9	8	7
Necrosis, Focal	4 [2.3]	6 [2.8]	7 [2.3]	6 [3.2]
Regeneration, Focal	_		1 [2.0]	
Tension Lipidosis	1		1	2 (2 03
Bile Duct, Hyperplasia	1 [2 0]			2 [2.0] 2 [3.0]
Centrilobular, Necrosis Hepatocyte, Karyomegaly	1 [3.0]		1 [2.0]	1 [2.0]
Hepatocyte, Karyomegary Hepatocyte, Vacuolization Cytoplasmic	2 [3.0]		T [2.0]	3 [2.7]
Kupffer Cell, Pigmentation	2 [4.0]		1 [4.0]	_ (
· · · · · · ·	• •			

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18 Date: 03/26/03 Time: 10:48:04

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
ALIMENTARY SYSTEM - CONT					
Mesentery	(9)	(10)	(10)	(8)	
Infarct	1 12 03		1		
Inflammation, Chronic Fat, Necrosis	1 [3.0]	0 (2 1)	6 (2 2)	2 [4.0]	
Pancreas	3 [3.7] (48)	8 [3.1] (50)	6 [3.2]	5 [3.2]	
Cyst	(40)	(50)	(50)	(50) 2 [3.0]	
Acinus, Cytoplasmic Alteration			1 [3.0]	1 [3.0]	
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy	(30)	(30)	1 [2.0]	2 [2.0]	
Hyperplasia, Lymphoid	7 [2.3]	3 [2.0]	6 [2.0]	4 [2.0]	
Stomach, Forestomach	(49)	(50)	(50)	(50)	
Cyst	2				
Diverticulum	1	1		2	
Erosion		1 [2.0]			
Inflammation, Chronic Active	2 [3.0]	2 [2.5]	4 [1.8]	2 [2.0]	
Ulcer	1 [3.0]	1 [2.0]	2 [2.0]	1 [2.0]	
Epithelium, Hyperplasia	3 [3.0]	7 [2.3]	2 [2.5]	4 [2.0]	
Stomach, Glandular Cyst	(48) 1 [3.0]	(50)	(50)	(50)	
Ulcer	1 [3.0]	2 [3.0]	1 [3.0]	1 [3.0]	
Tooth	(2)	(4)	(1)	(3)	
Malformation	2	4	(1)	2	
CARDIOVASCULAR SYSTEM					
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy				2 [2.5]	
Inflammation, Chronic	2 [2.0]	1 [3.0]	1 [1.0]	1 [3.0]	
Mineralization	1 [3.0]			2 [2.0]	
Thrombosis			1 [4.0]	1 [4.0]	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(50)	
Accessory Adrenal Cortical Nodule	6 [3.0]	5 [3.0]	3 [3.0]	5 [3.0]	
Degeneration, Fatty	1 [1.0]	1 [2.0]		2 [1.0]	
Hyperplasia, Focal	4 [1.5]	6 [1.7]	7 [1.7]	9 [1.4]	
Hypertrophy	1 [2.0]				
Hypertrophy, Focal	9 [1.7]	16 [1.8]	11 [1.7]	11 [1.9]	
Capsule, Hyperplasia	5 [2.0]	3 [2.0]	1 [3.0]	8 [2.4]	
Adrenal Medulla	(49)	(48)	(49)	(49)	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 96010-04 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 03/26/03

Time: 10:48:04

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
ENDOCRINE SYSTEM - CONT					
Hyperplasia	1 [1.0]	1 [2.0]	1 [2.0]		
Islets, Pancreatic	(48)	(50)	(50)	(50)	
Hyperplasia	31 [2.4]	25 [2.3]	28 [2.5]	23 [2.3]	
Parathyroid Gland	(46)	(48)	(47)	(49)	
Cyst		1 [3.0]	2 [3.0]	1 [3.0]	
Pituitary Gland	(47)	(47)	(45)	(49)	
Pars Distalis, Cyst	1 [3.0]	1 [3.0]	2 [3.0]	5 [3.0]	
Pars Intermedia, Cyst	1 [3.0]				
Thyroid Gland	(48)	(50)	(48)	(50)	
Degeneration, Cystic	13 [1.8]	17 [2.0]	14 [1.9]	15 [1.7]	
Follicular Cell, Hypertrophy	2 [1.0]		1 [1.0]	2 [1.5]	
GENERAL BODY SYSTEM					
None					
GENITAL SYSTEM					
Epididymis	(50)	(50)	(50)	(50)	
Atypia Cellular	1 [2.0]	6 [2.2]	4 [2.3]	3 [2.3]	
Granuloma Sperm		1 [4.0]		1 [4.0]	
Inflammation, Chronic	4-0.	1 [3.0]	1 [2.0]	1 [3.0]	
Preputial Gland	(50)	(50)	(50)	(50)	
Cyst	22 [3.0]	26 [3.0]	15 [3.0]	29 [3.0]	
Inflammation, Chronic	28 [2.4]	27 [2.4]	18 [2.2]	21 [2.2]	
Prostate	(50)	(50)	(50)	(50)	
Inflammation, Chronic	1 [2.0]	4 [2.0]	3 [2.7]	5 [2.4]	
Seminal Vesicle	(50)	(50)	(50)	(50)	
Degeneration		1 [3.0]	1 [2 0]	2 [3.0]	
Dilatation Inflammation Chronic	3 [2.3]		1 [3.0] 1 [4.0]		
Inflammation, Chronic Testes	3 [2.3] (50)	(50)	(50)	(50)	
Angiectasis	1 [3.0]	(30)	(30)	1 [4.0]	
Anglectasis Atrophy	1 [3.0]	1 [2.0]	1 [3.0]	1 [3.0]	
Necrosis		1 [2.0]	T [3.0]	1 [3.0]	
Germinal Epithelium, Atrophy	1 [1.0]	5 [2.0]	3 [1.7]	4 [1.8]	
Solution appenditum, notophy	1 [1.0]	J (2.0)	J (1.,)	1 (1.0)	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(49)	(50)	(50)	(50)	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18 Date: 03/26/03 Time: 10:48:04

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
EMATOPOIETIC SYSTEM - CONT				
Hyperplasia	21 [2.2]	12 [2.6]	13 [2.2]	15 [2.6]
Lymph Node	(3)		(1)	(3)
Mediastinal, Hemorrhage Lymph Node, Mandibular	(40)	(40)	(45)	1 [3.0]
Atrophy	(49) 1 [3.0]	(48)	(45)	(49)
Hyperplasia, Lymphoid	14 [2.4]	14 [2.3]	16 [2.2]	1 [2.0] 16 [2.3]
Pigmentation	7 [2.0]	10 [2.2]	9 [2.1]	9 [2.1]
Lymph Node, Mesenteric	(47)	(50)	(50)	(50)
Atrophy	2 [2.5]	1 [2.0]	(,	1 [3.0]
Hematopoietic Cell Proliferation	2 [2.5]		4 [2.5]	1 [2.0]
Hemorrhage	4 [1.8]	6 [2.3]	2 [2.0]	4 [2.5]
Hyperplasia, Lymphoid	11 [2.7]	6 [2.8]	6 [2.8]	9 [2.6]
Spleen	(48)	(50)	(50)	(50)
Depletion Lymphoid	22 (2 0)	17 (0 ()	10 (0 0)	1 [3.0]
Hematopoietic Cell Proliferation Hyperplasia, Lymphoid	21 [2.8] 8 [2.3]	17 [2.6] 9 [2.0]	18 [2.8] 10 [2.2]	21 [3.3]
Pigmentation	8 [2.3]	3 [2.0]	1 [2.2]	8 [2.1] 1 [3.0]
Lymphoid Follicle, Atrophy	1 [3.0]	5 [2.0]	1 [2.0]	3 [3.0]
Thymus	(43)	(43)	(40)	(44)
Atrophy	11 [2.6]	13 [2.6]	4 [2.5]	13 [2.5]
Cyst	1 [3.0]	3 [3.0]	4 [3.0]	4 [3.0]
Hyperplasia, Lymphoid	2 [3.0]	1 [2.0]		
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	1			
Edema				3 [3.0]
Inflammation, Chronic Ulcer	2 (2 5)		1 [3.0]	1 [3.0]
Epidermis, Hyperplasia	2 [3.5] 1 [3.0]			1 [3.0]
Epideimis, hyperpidsid	1 [3.0]			1 [3.0]
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Fracture	1	1	(30)	2
Hyperostosis	1 [3.0]	1 (3.0)		-
Skeletal Muscle	(3)	(1)	(3)	(2)
Atrophy		1 [2.0]	•	• •
Infiltration Cellular, Lipocyte	1 [3.0]			

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 96010-04 Study Type: CHRONIC

Route: DOSED WATER

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18

Date: 03/26/03

Time: 10:48:04

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L
NERVOUS SYSTEM				
Peripheral Nerve Atrophy		(1) 1 [3.0]	(2)	(1)
RESPIRATORY SYSTEM				
Lung Edema Foreign Body Hemorrhage Hyperplasia, Lymphoid Infiltration Cellular, Histiocyte Metaplasia, Osseous Alveolar Epithelium, Hyperplasia Nose Foreign Body Inflammation, Chronic Respiratory Epithelium, Hyperplasia SPECIAL SENSES SYSTEM Eye Cataract Inflammation, Chronic	(50) 6 [2.2] 1 5 [1.6] 4 [2.0] 8 [2.6] 2 [1.0] (50) 1 1 [1.0] 1 [1.0]	(50) 11 [2.1] 3 [2.0] 5 [2.0] 5 [3.0] 2 [1.0] 3 [1.7] (50) 1 2 [2.5] 1 [2.0]	(50) 7 [2.0] 4 [1.3] 7 [2.0] 9 [3.1] 1 [1.0] (50) 1 [1.0]	(50) 8 [2.0] 1 5 [2.0] 6 [2.0] 10 [2.5] 5 [1.6] (50) 2 5 [2.8]
Harderian Gland Hyperplasia, Focal Inflammation, Chronic	(50) 1 [2.0] 1 [2.0]	(50) 3 [2.3]	(50)	(49) 1 [2.0] 2 [3.0]
URINARY SYSTEM				
Kidney Cyst Hydronephrosis Hyperplasia, Lymphoid Infarct Inflammation, Chronic Metaplasia, Osseous Nephropathy Renal Tubule, Accumulation, Hyaline Droplet	(49) 14 [3.0] 1 [2.0] 8 [2.3] 5 [1.8] 7 [1.4] 37 [1.3]	(50) 10 [3.0] 2 [2.0] 6 [2.5] 1 [1.0] 1 [3.0] 5 [2.0] 42 [1.7] 1 [3.0]	(50) 9 [3.0] 2 [2.0] 4 [2.3] 4 [1.3] 3 [2.7] 43 [1.5] 1 [3.0]	(50) 10 [2.9] 1 [3.0] 11 [2.3] 5 [2.2] 1 [2.0] 4 [2.5] 36 [1.6]

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

Report: PEIRPT18 Date: 03/26/03 Time: 10:48:04

B6C3F1 MICE MALE	0 MG/L	500 MG/L	1000MG/L	2000MG/L	
JRINARY SYSTEM - CONT					
Renal Tubule, Dilatation	1 [2.0]	2 [2.5]		3 [2.3]	
Renal Tubule, Hyperplasia	1 [1.0]	1 [1.0]		1 [1.0]	
Renal Tubule, Necrosis	1 [2.0]			2 [3.5]	
Renal Tubule, Pigmentation		2 [4.0]	1 [2.0]	1 [2.0]	
Urethra			(1)	•	
Angiectasis			1 [4.0]		
Urinary Bladder	(49)	(50)	(50)	(50)	
Edema	1 [3.0]		, ,	1 [4.0]	
Hyperplasia, Lymphoid		1 [2.0]	1 [2.0]	•	
Inflammation, Chronic		• •	•	1 [3.0]	
Transitional Epithelium, Hyperplasia		2 [2.0]		1 [3.0]	

a Number of animals examined microscopically at site and number of animals with lesion b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

 END	OF	REPORT	

NTP LAB: Southern Research Inst EXPERIMENT: 96010 TEST: 04 TEST TYPE: CHRONIC

PATHOLOGIST: HEATH, JAMES E.

CONT: N01-ES-85420

WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

CAGES FROM 0000 TO LAST CAGE

STATISTICAL ANALYSIS OF PRIMARY TUMORS

ROUTE: DOSED WATER

REPORT: PEIRPT08 DATE: 03/26/03 TIME: 10:41:04 PAGE: 1 NTP C#: 96010A

CAS: 7775-09-9

FINAL#1/MICE

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE:

TREATMENT GROUPS:

INCLUDE ALL

NTP LAB: Southern Research Inst EXPERIMENT: 96010 TEST: 04 TEST TYPE: CHRONIC CONT: N01-ES-85420 PATHOLOGIST: HEATH, JAMES E. Mice(B6C3F1)

STATISTICAL ANALYSIS OF PRIMARY TUMORS WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

CAGES FROM 0000 TO LAST CAGE

ROUTE: DOSED WATER

NTP C#: 96010A CAS: 7775-09-9

REPORT: PEIRPT08

DATE: 03/26/03

TIME: 10:41:04

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES

ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex
Adrenal Medulla
Bone Marrow
Islets, Pancreatic
Kidney
Liver
Lung
Nose
Ovary
Pancreas
Pituitary Gland
Spleen
Testes
Thyroid Gland

NTP LAB: Southern Research Inst EXPERIMENT: 96010 TEST: 04

TEST TYPE: CHRONIC

CONT: N01-ES-85420 PATHOLOGIST: HEATH, JAMES E. STATISTICAL ANALYSIS OF PRIMARY TUMORS WATER DISINFECTION BYPRODUCTS (SODIUM CHLORATE)

CAGES FROM 0000 TO LAST CAGE

ROUTE: DOSED WATER

NTP C#: 96010A CAS: 7775-09-9

REPORT: PEIRPT08

DATE: 03/26/03

TIME: 10:41:04

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS WATER DISINFECTION BYPRODUCTS (SODIUM IN THE ANALYSIS OF

Male Mice

Organ ____

Morphology

Liver

Hepatoblastoma

Testes

Adenoma

Female Mice _____

Organ

Morphology

____ Adrenal Medulla

Pheochromocytoma Malignant

Islets, Pancreatic

Carcinoma or Adenoma

Liver

Hemangioma

Hepatocellular Adenoma Hepatocellular Carcinoma

Hepatocellular Carcinoma or Hepatoblastoma Granulosa Cell Tumor Benign

Ovary

Granulosa Cell Tumor: Benign, Malignant, NOS

Skin

Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma

Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma

Polyp Stromal

Uterus All Organs

Benign Tumors Malignant Tumors

Date: 03/26/03 EXPERIMENT: 96010 TEST: 04

(e)

(e)

Page 1 Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Males Females Dose 0 MG/L 500 MG/L 1000MG/L 2000MG/L 0 MG/L 500 MG/L 1000MG/L 2000MG/L Adrenal Cortex Adenoma TUMOR RATES _____ OVERALL (a) 3/50 (6%) 4/50 (8%) 5/50 (10%) 3/50 (6%) 3/50 (6%) 4/50 (8%) 5/50 (10%) 3/50 (6%) 3/44.60 4/47.28 5/46.48 3/43.80 6.7% 8.5% 10.8% 6.9% 1/50 (2%) 0/49 (0%) 0/49 (0%) 0/50 (0%) POLY-3 RATE (b) 1/43.63 0/44.35 0/42.00 0/43.40 POLY-3 PERCENT (g) 6.7% 8.5% 10.8% 6.9% 3/38 (8%) 4/41 (10%) 5/41 (12%) 3/33 (9%) 2.3% 0.0% 0.0% 0.0% TERMINAL (d) 1/36 (3%) 0/34 (0%) 0/31 (0%) 0/35 (0%) FIRST INCIDENCE 729 (T) 729 (T) 729 (T) 729 (T) 729 (T) -----STATISTICAL TESTS -----LIFE TABLE P=0.542 P=0.500P=0.398 P=0.597 P=0.313N P=0.511NP=0.530N POLY 3 P=0.566 P=0.532 P=0.379 P=0.654 P=0.597 P=0.550 P=0.519 P=0.372 P=0.658 P=0.550 P=0.547 P=0.387 P=0.648 LOGISTIC REGRESSION P=0.500 P=0.542 P=0.398 P=0.597 COCH-ARM / FISHERS P=0.554N P=0.500 P=0.357 P=0.661N P=0.506N P=0.310N P=0.497N P=0.508N P=0.501NP=0.309N P=0.499N P=0.509N P=0.502NP=0.313N P=0.493N P=0.507N P=0.500NP=0.313N (e) (e) (e) P=0.306N P=0.505NP=0.505NP=0.500N P=0.564 ORDER RESTRICTED (e) (e) (e) P=0.121N (e) (e) (e) Males Females Dose 0 MG/L 500 MG/L 1000MG/L 2000MG/L 0 MG/L 500 MG/L 1000MG/L 2000MG/L Adrenal Medulla Pheochromocytoma Malignant TUMOR RATES -----

 OVERALL (a)
 0/49 (0%)
 0/48 (0%)
 0/49 (0%)

 POLY-3 RATE (b)
 0/43.98
 0/45.28
 0/45.48

 POLY-3 PERCENT (g)
 0.0%
 0.0%
 0.0%

 TERMINAL (d)
 0/38 (0%)
 0/39 (0%)
 0/40 (0%)

 0/49 (0%) 2/50 (4%) 0/49 (0%) 0/49 (0%) 0/50 (0%) 0/42.80 2/43.88 0/44.35 0/42.00 0/43.40 0.0% 4.6% 0.0% 0.0% 0.0% 0/32 (0%) 1/36 (3%) 0/34 (0%) 0/31 (0%) 0/35 (0%) FIRST INCIDENCE ___ ___ ___ 660 -----STATISTICAL TESTS -----LIFE TABLE (e) (e) (e) (e) P=0.119N P=0.233N P=0.256N P=0.237NPOLY 3 (e) (e) (e) P=0.117N (e) P=0.235N P=0.247N P=0.239NPOLY 1.5 (e) (e) P=0.116N (e) (e) P=0.237N P=0.248N P=0.240N POLY 6 (e) (e) P=0.118N (e) (e) P=0.232N P=0.247N P = 0.239NLOGISTIC REGRESSION (e) P=0.116N (e) (e) (e) P=0.241N P=0.245N P=0.238N COCH-ARM / FISHERS (e) (e) (e) P=0.115N (e) P=0.253N P=0.253N P=0.247NORDER RESTRICTED (e)

(e)

P=0.030N*

(e)

(e)

03 EXPERIMENT: 96010 TEST: 04
Statistical Analysis of Primary Tumors in Mice(B6C3F1)
Terminal Sacrifice at 105 weeks Page 2
- WATER DISINFECTION BYPRODUCTS (SODIUM Date: 03/26/03

	:=====================================		Sacrifice at		========	==========	=========	.
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	emales 1000MG/L	2000MG/L
Adrenal Medulla Pheochromocytoma:				=======			-=======	
rumor rates								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/49 (0%) 0/43.98 0.0% 0/38 (0%)	0/48 (0%) 0/45.28 0.0% 0/39 (0%)	0/49 (0%) 0/45.48 0.0% 0/40 (0%)	0/49 (0%) 0/42.80 0.0% 0/32 (0%)	3/50 (6%) 3/43.88 6.8% 2/36 (6%) 660	0/49 (0%) 0/44.35 0.0% 0/34 (0%)	0/49 (0%) 0/42.00 0.0% 0/31 (0%)	2/50 (4%) 2/43.58 4.6% 1/35 (3%) 681
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	(e) (e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.532N P=0.538N P=0.536N P=0.541N P=0.535N P=0.529N P=0.102N	P=0.122N P=0.117N P=0.119N P=0.114N P=0.119N P=0.125N (e)	P=0.141N P=0.126N P=0.127N P=0.127N P=0.127N P=0.127N P=0.125N (e)	P=0.496N P=0.503N P=0.504N P=0.501N P=0.502N P=0.500N (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Temales 1000MG/L	2000MG/L
Bone Osteosarcoma TUMOR RATES	#							#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	1/50 (2%) 1/45.39 2.2% 0/35 (0%) 719	1/50 (2%) 1/42.71 2.3% 0/31 (0%) 622	2/50 (4%) 2/44.56 4.5% 0/35 (0%) 447
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.154 P=0.156 P=0.154 P=0.159 P=0.167 P=0.153 P=0.122	P=0.505 P=0.508 P=0.505 P=0.512 P=0.511 P=0.500 (e)	P=0.495 P=0.496 P=0.495 P=0.520 P=0.500 (e)	P=0.247 P=0.242 P=0.239 P=0.246 P=0.273 P=0.247 (e)

Date: 03/26/03

/03 EXPERIMENT: 96010 TEST: 04 Page 3
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

======================================		Terminal	Sacrifice at	105 weeks				
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	emales 1000MG/L	2000MG/L
Bone Marrow Hemangiosarcoma					=======================================		=======================================	==========
TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0/49 (0%) 0/44.53 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	1/50 (2%) 1/44.05 2.3% 0/36 (0%)	1/50 (2%) 1/45.35 2.2% 1/35 (3%) 729 (T)	2/50 (4%) 2/42.58 4.7% 1/31 (3%) 662	0/50 (0%) 0/43.40 0.0% 0/35 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.371N P=0.376N P=0.374N P=0.377N P=0.366N P=0.366N P=0.274N	P=0.758N P=0.754N P=0.756N P=0.752N P=0.752 P=0.753N (e)	P=0.483 P=0.488 P=0.489 P=0.487 P=0.506 P=0.500 (e)	P=0.495N P=0.503N P=0.503N P=0.503N P=0.482N P=0.500N (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000 M G/L	0 MG/L	500 MG/L	emales 1000MG/L	2000MG/L
Harderian Gland Adenoma		=======================================			=======================================	:===== ==		
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	6/50 (12%) 6/45.47 13.2% 4/38 (11%) 562	4/50 (8%) 4/47.40 8.4% 3/41 (7%) 698	4/50 (8%) 4/47.28 8.5% 2/41 (5%) 543	6/50 (12%) 6/44.51 13.5% 3/33 (9%) 605	11/50 (22%) 11/44.13 24.9% 10/36 (28%) 576	9/50 (18%) 9/45.61 19.7% 7/35 (20%) 673	5/50 (10%) 5/42.40 11.8% 4/31 (13%) 712	6/50 (12%) 6/43.85 13.7% 5/35 (14%) 597
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS	P=0.422 P=0.478 P=0.487 P=0.511 P=0.5500	P=0.323N P=0.344N P=0.353N P=0.332N P=0.375N P=0.370N	P=0.333N P=0.345N P=0.353N P=0.338N P=0.417N P=0.370N	P=0.556 P=0.606 P=0.612 P=0.596 P=0.621N P=0.620N	P=0.104N P=0.093N P=0.093N P=0.092N P=0.093N P=0.088N	P=0.420N P=0.368N P=0.380N P=0.351N P=0.348N P=0.402N	P=0.142N P=0.095N P=0.095N P=0.097N P=0.095N P=0.086N	P=0.157N P=0.142N P=0.145N P=0.137N P=0.143N P=0.143N

O3 EXPERIMENT: 96010 TEST: 04 Page 4
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 03/26/03

	=======================================		Sacrifice at :		==========	=======================================	=======	==== == =====
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F€ 500 MG/L	emales 1000MG/L	2000MG/L
Harderian Gland Carcinoma or Aden		= # = = = = = = = = = = = = = = = = = = =	:=====================================	z	=======================================			===== ==
TUMOR RATES	#	#	#	#	#	#	#	#
POVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) FERMINAL (d) FIRST INCIDENCE	6/50 (12%) 6/45.47 13.2% 4/38 (11%) 562	4/50 (8%) 4/47.40 8.4% 3/41 (7%) 698	5/50 (10%) 5/47.28 10.6% 3/41 (7%) 543	7/50 (14%) 7/44.97 15.6% 3/33 (9%) 595	12/50 (24%) 12/44.13 27.2% 11/36 (31%) 576	10/50 (20%) 10/46.13 21.7% 7/35 (20%) 568	5/50 (10%) 5/42.40 11.8% 4/31 (13%) 712	6/50 (12%) 6/43.85 13.7% 5/35 (14%) 597
STATISTICAL TESTS LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.281 P=0.335 P=0.342 P=0.326 P=0.366 P=0.351 P=0.383	P=0.323N P=0.344N P=0.353N P=0.332N P=0.375N P=0.370N (e)	P=0.453N P=0.473N P=0.481N P=0.465N P=0.543N P=0.500N (e)	P=0.442 P=0.491 P=0.495 P=0.485 P=0.504 P=0.500 (e)	P=0.063N P=0.053N P=0.053N P=0.054N P=0.054N P=0.050N P=0.059N	P=0.426N P=0.358N P=0.375N P=0.334N P=0.365N P=0.405N (e)	P=0.097N P=0.060N P=0.061N P=0.061N P=0.060N P=0.054N (e)	P=0.107N P=0.094N P=0.096N P=0.096N P=0.095N P=0.096N (e)
Dose	0 M G/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 500 MG/L	emales 1000MG/L	2000MG/L
Intestine Small: Duode Polyp Adenomatous TUMOR RATES OVERALL (a) POLY-3 RATE (b)	# 0/50 (0%) 0/44.60	# 0/50 (0%) 0/47.28	# 2/50 (4%) 2/46.48	# 0/50 (0%) 0/43.80	# 0/50 (0%) 0/43.63	# 0/50 (0%) 0/45.35	# 0/50 (0%) 0/42.33	# 1/50 (2%) 1/43.40
POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0.0% 0/38 (0%) 	0.0% 0/41 (0%) 	4.3% 2/41 (5%) 729 (T)	0.0% 0/33 (0%) 	0.0%	0.0% 0/35 (0%) 	0.0% 0/31 (0%) 	2.3% 1/35 (3%) 729 (T)
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.566 P=0.573 P=0.582 P=0.558 (e) P=0.595 P=0.255	(e) (e) (e) (e) (e) (e)	P=0.255 P=0.246 P=0.243 P=0.250 P=0.255 P=0.247 (e)	(e) (e) (e) (e) (e) (e)	P=0.199 P=0.196 P=0.196 P=0.196 (e) P=0.198 P=0.119	(e) (e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.494 P=0.499 P=0.498 P=0.500 P=0.494 P=0.500 (e)

Date: 03/26/03 EXPERIMENT: 96010 TEST: 04

Page 5 Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Males Females 0 MG/L 500 MG/L 1000MG/L 2000MG/L 0 MG/L Dose 500 MG/L 1000MG/L 2000MG/L Intestine Small: Jejunum Carcinoma TUMOR RATES _____ OVERALL (a) 2/50 (4%) 2/50 (4%) 0/50 (0%) 2/50 (4%) 0/50 (0%) 0/50 (0%) 0/50 (0%) 0/50 (0%) 2/44.60 POLY-3 RATE (b) 2/47.28 0/46.48 2/44.39 0/43.63 0/45.35 0/42.33 0/43.40 POLY-3 PERCENT (g) 4.5% 4.2% 0.0% 0.0% 4.5% 0.0% 0.0% 0.0% TERMINAL (d) 2/38 (5%) 0/41 (0%) 2/41 (5%) 0/33 (0%) 0/36 (0%) 0/35 (0%) 0/31 (0%) 0/35 (0%) FIRST INCIDENCE 729 (T) 729 (T) 570 ---___ ------STATISTICAL TESTS ------LIFE TABLE P=0.599N P=0.667N P=0.222N P=0.666 (e) (e) (e) P=0.673N P=0.681N P=0.663N POLY 3 P=0.228N P=0.557N P=0.692(e) (e) (e) (e) POLY 1.5 P=0.231N P=0.556N P=0.693 (e) (e) (e) (e) P=0.225N POLY 6 P=0.559N P=0.690 (e) (e) (e) (e) LOGISTIC REGRESSION P = 0.555NP=0.667N (e) P=0.694N (e) (e) (e) (e) COCH-ARM / FISHERS P=0.556N P=0.691N P=0.247N P=0.691N (e) (e) (e) (e) ORDER RESTRICTED P = 0.437N(e) (e) (e) (e) (e) (e) (e) Males Females Dose 0 MG/L 500 MG/L 1000MG/L 2000MG/L 0 MG/L 500 MG/L 1000MG/L 2000MG/L Intestine Small: Site Unspecified Carcinoma

TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	2/50 (4%) 2/44.60 4.5% 2/38 (5%) 729 (T)	2/50 (4%) 2/47.28 4.2% 2/41 (5%) 729 (T)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	3/50 (6%) 3/44.39 6.8% 1/33 (3%) 570	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	0/50 (0%) 0/45.35 0.0% 0/35 (0%)	0/50 (0%) 0/42.33 0.0% 0/31 (0%)	0/50 (0%) 0/43.40 0.0% 0/35 (0%)
STATISTICAL TESTS								
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.373 P=0.418 P=0.420 P=0.414 P=0.420 P=0.423 P=0.277	P=0.667N P=0.673N P=0.681N P=0.663N P=0.667N P=0.691N (e)	P=0.222N P=0.228N P=0.231N P=0.225N (e) P=0.247N (e)	P=0.461 P=0.498 P=0.499 P=0.495 P=0.499 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)

03 EXPERIMENT: 96010 TEST: 04 Page 6
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 03/26/03

=======================================	:== ==== ======	Terminal	==========		=========	==========	=========	:===== ===
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	emales 1000MG/L	2000 M G/L
Intestine Small: Site Carcinoma or Aden	Unspecified							
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) FERMINAL (d) FIRST INCIDENCE	3/50 (6%) 3/44.60 6.7% 3/38 (8%) 729 (T)	2/50 (4%) 2/47.28 4.2% 2/41 (5%) 729 (T)	1/50 (2%) 1/46.48 2.2% 1/41 (2%) 729 (T)	4/50 (8%) 4/44.39 9.0% 2/33 (6%) 570	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	1/50 (2%) 1/45.45 2.2% 0/35 (0%) 706	0/50 (0%) 0/42.33 0.0% 0/31 (0%)	0/50 (0%) 0/43.40 0.0% 0/35 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.309 P=0.362 P=0.366 P=0.356 P=0.358 P=0.371 P=0.270	P=0.465N P=0.473N P=0.484N P=0.461N P=0.465N P=0.500N (e)	P=0.278N P=0.291N P=0.296N P=0.286N P=0.278N P=0.309N (e)	P=0.445 P=0.497 P=0.499 P=0.494 P=0.494 P=0.500 (e)	P=0.582N P=0.565N P=0.567N P=0.563N P=0.570N P=0.567N P=0.389N	P=0.520 P=0.508 P=0.505 P=0.512 P=0.505 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)
Oose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L		emales 1000MG/L	2000 M G/L
Intestine Small: Site	Unspecified							
Polyp Adenomatous		#	#	#	#	#		#
Polyp Adenomatous TUMOR RATES DOVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d)		# 0/50 (0%) 0/47.28 0.0% 0/41 (0%)	# 2/50 (4%) 2/46.48 4.3% 2/41 (5%) 729 (T)	# 0/50 (0%) 0/43.80 0.0% 0/33 (0%)	# 0/50 (0%) 0/43.63 0.0% 0/36 (0%)	# 0/50 (0%) 0/45.35 0.0% 0/35 (0%)	# 0/50 (0%) 0/42.33 0.0% 0/31 (0%)	# 1/50 (2%) 1/43.40 2.3% 1/35 (3%) 729 (T)
	# 0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	2/50 (4%) 2/46.48 4.3% 2/41 (5%)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	0/50 (0%) 0/45.35 0.0% 0/35 (0%)	0/50 (0%) 0/42.33 0.0% 0/31 (0%)	1/50 (2%) 1/43.40 2.3% 1/35 (3%)

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Statistical Analysis of Primary Tumors in Mice(B6C3F1)
Terminal Sacrifice at 105 weeks Date: 03/26/03

====================================		Terminal	Sacrifice at	105 weeks	=========			·
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Semales 1000MG/L	2000MG/L
Islets, Pancreatic Adenoma	• ===	=======================================					**************************************	
TUMOR RATES					-			
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	1/48 (2%) 1/43.91 2.3% 1/38 (3%) 729 (T)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	1/50 (2%) 1/43.84 2.3% 0/33 (0%) 719	0/46 (0%) 0/42.28 0.0% 0/36 (0%)	2/47 (4%) 2/44.36 4.5% 1/35 (3%) 706	2/49 (4%) 2/42.00 4.8% 2/31 (7%) 729 (T)	3/49 (6%) 3/43.88 6.8% 1/35 (3%) 475
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.570 P=0.591 P=0.595 P=0.585 P=0.583 P=0.602 P=0.393	P=0.485N P=0.485N P=0.488N P=0.481N (e) P=0.490N (e)	P=0.485N P=0.489N P=0.490N P=0.487N (e) P=0.490N (e)	P=0.735 P=0.760 P=0.758N P=0.756 P=0.752 P=0.742N (e)	P=0.106 P=0.112 P=0.113 P=0.112 P=0.127 P=0.121 P=0.082	P=0.248 P=0.248 P=0.245 P=0.252 P=0.252 P=0.248 P=0.253 (e)	P=0.206 P=0.235 P=0.238 P=0.232 P=0.206 P=0.263 (e)	P=0.126 P=0.125 P=0.125 P=0.126 P=0.171 P=0.133 (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 500 MG/L	emales 1000MG/L	2000MG/L
Islets, Pancreatic Carcinoma or Aden TUMOR RATES	10ma				·			
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	1/48 (2%) 1/43.91 2.3% 1/38 (3%) 729 (T)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	2/50 (4%) 2/43.84 4.6% 1/33 (3%) 719	0/46 (0%) 0/42.28 0.0% 0/36 (0%)	2/47 (4%) 2/44.36 4.5% 1/35 (3%) 706	2/49 (4%) 2/42.00 4.8% 2/31 (7%) 729 (T)	4/49 (8%) 4/43.88 9.1% 2/35 (6%) 475
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.210 P=0.243 P=0.246 P=0.238 P=0.222 P=0.252 P=0.128	P=0.485N P=0.485N P=0.488N P=0.481N (e) P=0.490N (e)	P=0.485N P=0.489N P=0.490N P=0.487N (e) P=0.490N (e)	P=0.458 P=0.499 P=0.505 P=0.492 P=0.479 P=0.515 (e)	P=0.043 * P=0.045 * P=0.046 * P=0.045 * P=0.052 P=0.051 P=0.030 *	P=0.248 P=0.248 P=0.245 P=0.252 P=0.252 P=0.253 (e)	P=0.206 P=0.235 P=0.238 P=0.232 P=0.206 P=0.263 (e)	P=0.066 P=0.065 P=0.065 P=0.065 P=0.087 P=0.067 (e)

03 EXPERIMENT: 96010 TEST: 04
Statistical Analysis of Primary Tumors in Mice(B6C3F1)
Terminal Sacrifice at 105 weeks Page 8 WATER DISINFECTION BYPRODUCTS (SODIUM Date: 03/26/03

			Sacrifice at		=======================================	:=========	: = ========	=======================================
Dose	0 MG/L	500 M G/L	Males 1000MG/L	2000 M G/L	0 MG/L	500 MG/L	Semales 1000MG/L	2000MG/L
Liver Hemangioma	=======							
TUMOR RATES						. 		
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0/48 (0%) 0/43.91 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	1/50 (2%) 1/46.48 2.2% 1/41 (2%) 729 (T)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	2/49 (4%) 2/43.57 4.6% 2/36 (6%) 729 (T)	0/50 (0%) 0/45.35 0.0% 0/35 (0%)	0/49 (0%) 0/42.00 0.0% 0/31 (0%)	0/50 (0%) 0/43.40 0.0% 0/35 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.681 P=0.675 P=0.684 P=0.662 (e) P=0.699 P=0.391	(e) (e) (e) (e) (e)	P=0.515 P=0.511 P=0.510 P=0.513 P=0.515 P=0.510 (e)	(e) (e) (e) (e) (e) (e)	P=0.123N P=0.114N P=0.114N P=0.116N P=0.123N P=0.114N P=0.030N*	P=0.244N P=0.228N P=0.231N P=0.224N (e) P=0.242N (e)	P=0.272N P=0.245N P=0.246N P=0.245N (e) P=0.247N (e)	P=0.244N P=0.238N P=0.238N P=0.237N (e) P=0.242N (e)
Dose	0 MG/L	500 M G/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	emales 1000MG/L	2000 M G/L
Liver Hemangiosarcoma TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	1/48 (2%) 1/43.91 2.3% 1/38 (3%) 729 (T)	2/50 (4%) 2/47.28 4.2% 2/41 (5%) 729 (T)	1/50 (2%) 1/46.48 2.2% 1/41 (2%) 729 (T)	2/50 (4%) 2/43.80 4.6% 2/33 (6%) 729 (T)	1/49 (2%) 1/43.57 2.3% 1/36 (3%) 729 (T)	2/50 (4%) 2/45.35 4.4% 2/35 (6%) 729 (T)	0/49 (0%) 0/42.00 0.0% 0/31 (0%)	0/50 (0%) 0/43.40 0.0% 0/35 (0%)
STATISTICAL TESTS LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.385 P=0.437 P=0.444 P=0.428 P=0.385 P=0.456 P=0.442	P=0.527 P=0.526 P=0.520 P=0.533 P=0.527 P=0.515 (e)	P=0.745N P=0.748N P=0.749N P=0.746N P=0.745N P=0.742N (e)	P=0.451 P=0.499 P=0.505 P=0.492 P=0.451 P=0.515 (e)	P=0.198N P=0.190N P=0.190N P=0.189N P=0.198N P=0.186N P=0.175N	P=0.490 P=0.514 P=0.510 P=0.520 P=0.490 P=0.508 (e)	P=0.530N P=0.507N P=0.508N P=0.507N (e) P=0.500N (e)	P=0.506N P=0.501N P=0.501N P=0.500N (e) P=0.495N (e)

6/03 EXPERIMENT: 96010 TEST: 04

Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Date: 03/26/03

=======================================	=========	Terminal S	Sacrifice at 1		===========	:========	=========	
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	emales 1000MG/L	2000MG/L
Liver Hepatoblastoma							======================================	
TUMOR RATES			·=					
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	6/48 (13%) 6/44.45 13.5% 5/38 (13%) 561	3/50 (6%) 3/47.85 6.3% 1/41 (2%) 577	1/50 (2%) 1/46.71 2.1% 0/41 (0%) 668	3/50 (6%) 3/43.84 6.8% 2/33 (6%) 719	1/49 (2%) 1/43.57 2.3% 1/36 (3%) 729 (T)	0/50 (0%) 0/45.35 0.0% 0/35 (0%)	0/49 (0%) 0/42.00 0.0% 0/31 (0%)	0/50 (0%) 0/43.40 0.0% 0/35 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.222N P=0.179N P=0.174N P=0.186N P=0.158N P=0.166N P=0.076N	P=0.212N P=0.207N P=0.214N P=0.197N P=0.238N P=0.223N (e)	P=0.051N P=0.048N* P=0.049N* P=0.047N* P=0.054N P=0.050N (e)	P=0.307N P=0.248N P=0.239N P=0.261N P=0.239N P=0.223N (e)	P=0.313N P=0.306N P=0.305N P=0.308N P=0.313N P=0.304N P=0.121N	P=0.506N P=0.492N P=0.494N P=0.489N (e) P=0.495N (e)	P=0.530N P=0.507N P=0.508N P=0.507N (e) P=0.500N (e)	P=0.506N P=0.501N P=0.501N P=0.500N (e) P=0.495N (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F6 500 MG/L	emales 1000MG/L	2000MG/L
Liver Hepatocellular Ad TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	30/48 (63%) 30/46.51 64.5% 25/38 (66%) 484	32/50 (64%) 32/47.31 67.6% 31/41 (76%) 722	36/50 (72%) 36/48.04 74.9% 32/41 (78%) 543	30/50 (60%) 30/45.77 65.5% 24/33 (73%) 535	30/49 (61%) 30/45.42 66.1% 26/36 (72%) 524	19/50 (38%) 19/45.74 41.5% 17/35 (49%) 674	26/49 (53%) 26/43.41 59.9% 19/31 (61%) 602	23/50 (46%) 23/44.75 51.4% 20/35 (57%) 475
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.185 P=0.478 P=0.533 P=0.417 P=0.500 P=0.449N P=0.427	P=0.563N P=0.459 P=0.482 P=0.438 P=0.584N P=0.522 (e)	P=0.300 P=0.184 P=0.197 P=0.172 P=0.228 P=0.216 (e)	P=0.310 P=0.546 P=0.577N P=0.492 P=0.549N P=0.482N (e)	P=0.289N P=0.252N P=0.248N P=0.252N P=0.263N P=0.214N P=0.100N	P=0.023N* P=0.013N* P=0.014N* P=0.011N* P=0.010N* P=0.017N* (e)	P=0.537N P=0.348N P=0.350N P=0.339N P=0.331N P=0.270N (e)	P=0.132N P=0.108N P=0.108N P=0.104N P=0.108N P=0.094N (e)

Page 10 WATER DISINFECTION BYPRODUCTS (SODIUM Date: 03/26/03 EXPERIMENT: 96010 TEST: 04

Statistical Analysis of Primary Tumors in Mice(B6C3F1)

Terminal Sacrifice at 105 weeks

======================================	==========		Sacrifice at 1	L05 weeks	: === ====	=======================================		:=====================================
Dose	0 MG/L	500 M G/L	Males 1000MG/L	2000 M G/L	0 MG/L	Fe 500 MG/L	emales 1000MG/L	2000 MG /L
Liver Hepatocellular	Carcinoma							
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	20/48 (42%) 20/46.21 43.3% 14/38 (37%) 484	14/50 (28%) 14/48.93 28.6% 10/41 (24%) 431	19/50 (38%) 19/48.53 39.2% 14/41 (34%) 558	13/50 (26%) 13/45.80 28.4% 5/33 (15%) 570	3/49 (6%) 3/43.65 6.9% 2/36 (6%) 710	13/50 (26%) 13/45.65 28.5% 9/35 (26%) 682	15/49 (31%) 15/42.18 35.6% 12/31 (39%) 711	9/50 (18%) 9/44.29 20.3% 7/35 (20%) 475
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.276N P=0.159N P=0.144N P=0.176N P=0.084N P=0.117N P=0.104N	P=0.110N P=0.099N P=0.105N P=0.093N P=0.142N P=0.113N (e)	P=0.400N P=0.421N P=0.427N P=0.416N P=0.462N P=0.435N (e)	P=0.200N P=0.100N P=0.091N P=0.109N P=0.068N P=0.077N (e)	P=0.154 P=0.158 P=0.157 P=0.164 P=0.150 P=0.179 P=0.010 *	P=0.009 ** P=0.007 ** P=0.007 ** P=0.008 ** P=0.009 ** P=0.007 ** (e)	P<0.001 ** P<0.001 ** P<0.001 ** P<0.001 ** P<0.001 ** P=0.002 ** (e)	P=0.060 P=0.061 P=0.061 P=0.063 P=0.062 P=0.065 (e)
			Males			F€	emales	
Dose	0 MG/L	500 MG/L	1000MG/L	2000MG/L	0 MG/L	500 MG/L	1000MG/L	2000MG/L
Liver Hepatocellular	Carcinoma or Hepa	ıtoblastoma						
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	23/48 (48%) 23/46.76 49.2% 16/38 (42%) 484	16/50 (32%) 16/49.00 32.7% 11/41 (27%) 431	20/50 (40%) 20/48.76 41.0% 14/41 (34%) 558	16/50 (32%) 16/45.84 34.9% 7/33 (21%) 570	4/49 (8%) 4/43.65 9.2% 3/36 (8%) 710	13/50 (26%) 13/45.65 28.5% 9/35 (26%) 682	15/49 (31%) 15/42.18 35.6% 12/31 (39%) 711	9/50 (18%) 9/44.29 20.3% 7/35 (20%) 475
					1			
STATISTICAL TESTS								

6/03 EXPERIMENT: 96010 TEST: 04 Page 11
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM
Terminal Sacrifice at 105 weeks Date: 03/26/03

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Dose	0 MG/L		Males 1000MG/L	2000MG/L	0 MG/L		males 1000MG/L	2000MG/L
Liver Hepatocellular Ca	rcinoma or Hepa	tocellular Ad	lenoma					=======================================
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	41/48 (85%) 41/47.67 86.0% 32/38 (84%) 484	42/50 (84%) 42/48.96 85.8% 37/41 (90%) 431	44/50 (88%) 44/49.35 89.2% 37/41 (90%) 543	40/50 (80%) 40/47.50 84.2% 27/33 (82%) 535	31/49 (63%) 31/45.50 68.1% 26/36 (72%) 524	26/50 (52%) 26/45.86 56.7% 21/35 (60%) 674	31/49 (63%) 31/43.48 71.3% 23/31 (74%) 602	26/50 (52%) 26/44.92 57.9% 22/35 (63%) 475
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.197 P=0.477N P=0.416N P=0.525N P=0.371N P=0.289N P=0.539N	P=0.404N P=0.604N P=0.574N P=0.597 P=0.523N P=0.535N (e)	P=0.576N P=0.434 P=0.450 P=0.411 P=0.466 P=0.468 (e)	P=0.333 P=0.517N P=0.455N P=0.571N P=0.394N P=0.330N (e)	P=0.340N P=0.287N P=0.283N P=0.286N P=0.297N P=0.237N P=0.233N	P=0.239N P=0.174N P=0.176N P=0.164N P=0.123N P=0.176N (e)	P=0.292 P=0.461 P=0.467 P=0.464 P=0.493 P=0.583N (e)	P=0.249N P=0.207N P=0.206N P=0.202N P=0.204N P=0.176N (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 500 MG/L	emales 1000MG/L	2000MG/L
	==========	=========	=========	=== ======		=======================================		=======================================
Liver Hepatocellular Ca or Hepatoblastoma TUMOR RATES		cellular Ader	oma,			·		
Hepatocellular Ca or Hepatoblastoma TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE		43/50 (86%) 43/49.02 87.7% 37/41 (90%)	45/50 (90%) 45/49.58 90.8% 37/41 (90%) 543	40/50 (80%) 40/47.50 84.2% 27/33 (82%) 535	31/49 (63%) 31/45.50 68.1% 26/36 (72%) 524	26/50 (52%) 26/45.86 56.7% 21/35 (60%) 674	31/49 (63%) 31/43.48 71.3% 23/31 (74%) 602	26/50 (52%) 26/44.92 57.9% 22/35 (63%) 475
Hepatocellular Ca or Hepatoblastoma TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d)	41/48 (85%) 41/47.67 86.0% 32/38 (84%)	43/50 (86%) 43/49.02 87.7% 37/41 (90%)	45/50 (90%) 45/49.58 90.8% 37/41 (90%)	40/47.50 84.2% 27/33 (82%)	31/45.50 68.1% 26/36 (72%)	26/45.86 56.7% 21/35 (60%)	31/43.48 71.3% 23/31 (74%)	26/44.92 57.9% 22/35 (63%)

03 EXPERIMENT: 96010 TEST: 04 Page 12
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 03/26/03

=======================================			Sacrifice at	105 weeks			·	
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Lung Alveolar/Bronchio		===========	.=======	* # = = = = = = = = = = = = = = = = = =	=======================================			=======================================
TUMOR RATES				-	 			
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	6/50 (12%) 6/44.60 13.5% 6/38 (16%) 729 (T)	4/50 (8%) 4/47.71 8.4% 3/41 (7%) 604	7/50 (14%) 7/47.00 14.9% 6/41 (15%) 570	6/50 (12%) 6/43.91 13.7% 4/33 (12%) 711	3/50 (6%) 3/43.98 6.8% 2/36 (6%) 630	1/50 (2%) 1/45.35 2.2% 1/35 (3%) 729 (T)	0/49 (0%) 0/41.33 0.0% 0/30 (0%)	3/50 (6%) 3/43.40 6.9% 3/35 (9%) 729 (T)
STATISTICAL TESTS	- 0 254	- 0 204	- 0 555		- 0 510		- 0 4400	T 0 653
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.354 P=0.423 P=0.437 P=0.403 P=0.427 P=0.455 P=0.496	P=0.324N P=0.328N P=0.344N P=0.308N P=0.333N P=0.370N (e)	P=0.556 P=0.540 P=0.526 P=0.556 P=0.535 P=0.500 (e)	P=0.528 P=0.615 P=0.615 P=0.602 P=0.573 P=0.620N (e)	P=0.512 P=0.513 P=0.515 P=0.509 P=0.516 P=0.525 P=0.284	P=0.308N P=0.294N P=0.298N P=0.290N P=0.296N P=0.309N (e)	P=0.148N P=0.130N P=0.129N P=0.132N P=0.128N P=0.125N (e)	P=0.653 P=0.657 P=0.657 P=0.657 P=0.662 P=0.661N (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 500 MG/L	Females 1000MG/L	2000MG/L
Lung Alveolar/Bronchic TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	4/50 (8%) 4/45.19 8.9% 2/38 (5%)	5/50 (10%) 5/47.28 10.6% 5/41 (12%) 729 (T)	7/50 (14%) 7/47.72 14.7% 4/41 (10%)	4/50 (8%) 4/44.15 9.1% 2/33 (6%) 640	1/50 (2%) 1/43.63 2.3% 1/36 (3%) 729 (T)	1/50 (2%) 1/45.35 2.2% 1/35 (3%) 729 (T)	2/49 (4%) 2/41.40 4.8% 1/30 (3%) 712	1/50 (2%) 1/43.40 2.3% 1/35 (3%) 729 (T)
STATISTICAL TESTS		(2)			(2,	, , ,		(0)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS	P=0.481 P=0.534 P=0.547 P=0.516 P=0.559N P=0.563 P=0.505	P=0.550 P=0.528 P=0.518 P=0.539 P=0.522 P=0.500	P=0.314 P=0.293 P=0.282 P=0.305 P=0.219 P=0.262	P=0.590 P=0.631 P=0.636 P=0.621 P=0.641 P=0.643N	P=0.575 P=0.581 P=0.582 P=0.581 P=0.580 P=0.590	P=0.756 P=0.752N P=0.755N P=0.748N P=0.756 P=0.753N	P=0.455 P=0.482 P=0.482 P=0.481 P=0.477 P=0.492 (e)	P=0.756 P=0.760 P=0.759 P=0.761N P=0.756 P=0.753N

/03 EXPERIMENT: 96010 TEST: 04 Page 13
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 03/26/03

====================================	. 		Sacrifice at 1		- 			
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Lung Alveolar/Bronchic Adenoma	olar Carcinoma c				===== ===			=======================================
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	10/50 (20%) 10/45.19 22.1% 8/38 (21%) 638	8/50 (16%) 8/47.71 16.8% 7/41 (17%) 604	13/50 (26%) 13/48.25 27.0% 9/41 (22%) 543	9/50 (18%) 9/44.27 20.3% 5/33 (15%) 640	4/50 (8%) 4/43.98 9.1% 3/36 (8%) 630	2/50 (4%) 2/45.35 4.4% 2/35 (6%) 729 (T)	2/49 (4%) 2/41.40 4.8% 1/30 (3%) 712	4/50 (8%) 4/43.40 9.2% 4/35 (11%) 729 (T)
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.418 P=0.505 P=0.523 P=0.480 P=0.537 P=0.548 P=0.488	P=0.331N P=0.349N P=0.367N P=0.328N P=0.358N P=0.398N (e)	P=0.398 P=0.383 P=0.359 P=0.408 P=0.310 P=0.318 (e)	P=0.590 P=0.520N P=0.511N P=0.536N P=0.524N P=0.500N (e)	P=0.479 P=0.482 P=0.486 P=0.478 P=0.499 P=0.499	P=0.343N P=0.323N P=0.328N P=0.317N P=0.318N P=0.339N (e)	P=0.402N P=0.365N P=0.363N P=0.369N P=0.362N P=0.349N (e)	P=0.631 P=0.636 P=0.637 P=0.636 P=0.644 P=0.643N (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Ovary Choriocarcinoma TUMOR RATES OVERALL (a) POLY-3 RATE (b)					0/45 (0%)	0/45 (0%) 0/41.72	2/47 (4%) 2/40.43	0/50 (0%)
POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE					0.0% 0/32 (0%)	0.0% 0/34 (0%) 	5.0% 1/30 (3%) 683	0.0% 0/35 (0%)
STATISTICAL TESTS LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	************	·**-			P=0.602 P=0.604 P=0.606 P=0.604 P=0.612 P=0.617 P=0.252	(e) (e) (e) (e) (e) (e)	P=0.233 P=0.241 P=0.240 P=0.244 P=0.241 P=0.258 (e)	(e) (e) (e) (e) (e) (e)

=======================================	:=============		===========			=========		=======================================
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000 M G/L
Ovary Cystadenoma								
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE					1/45 (2%) 1/39.57 2.5% 1/32 (3%) 729 (T)	4/45 (9%) 4/41.90 9.6% 3/34 (9%) 682	1/47 (2%) 1/40.25 2.5% 1/30 (3%) 729 (T)	1/50 (2%) 1/43.40 2.3% 1/35 (3%) 729 (T)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED			=======================================		P=0.353N P=0.336N P=0.338N P=0.330N P=0.343N P=0.332N P=0.305N	P=0.204 P=0.196 P=0.188 P=0.208 P=0.204 P=0.180 (e)	P=0.748 P=0.757N P=0.758N P=0.755N P=0.748 P=0.742N (e)	P=0.742N P=0.740N P=0.741N P=0.738N P=0.742N P=0.726N (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Ovary Granulosa Cell TUMOR RATES	Tumor Benign							
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE					1/45 (2%) 1/39.57 2.5% 1/32 (3%) 729 (T)	1/45 (2%) 1/41.72 2.4% 1/34 (3%) 729 (T)	1/47 (2%) 1/40.25 2.5% 1/30 (3%) 729 (T)	5/50 (10%) 5/43.40 11.5% 5/35 (14%) 729 (T)
STATISTICAL TESTS								
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION					P=0.031 * P=0.031 * P=0.032 * P=0.030 * P=0.031 *	P=0.748N P=0.749N P=0.754N P=0.741N P=0.748N	P=0.748 P=0.757N P=0.758N P=0.755N P=0.748	P=0.123 P=0.123 P=0.122 P=0.125 P=0.123

Date: 03/26/03

EAPERIMENT: 96010 TEST: 04

Statistical Analysis of Primary Tumors in Mice(B6C3F1)
Terminal Sacrifice at 105 weeks

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WATER DISINFECTION BYPRODUCTS (SODIUM

======================================		Terminal	Sacrifice at	105 weeks				
			Malag	===========	=======================================			:======================================
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	'emales 1000MG/L	2000MG/L
**=====================================	:=======:: ·	=======================================	===== ====		=======================================	=======================================	==========	
Ovary Granulosa Cell	Tumor: Benign, 1	Malignant, NO	5					
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE					1/45 (2%) 1/39.57 2.5% 1/32 (3%) 729 (T)	1/45 (2%) 1/41.72 2.4% 1/34 (3%) 729 (T)	1/47 (2%) 1/40.25 2.5% 1/30 (3%) 729 (T)	6/50 (12%) 6/44.39 13.5% 5/35 (14%) 142
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED					P=0.012 * P=0.012 * P=0.012 * P=0.011 * P=0.015 * P=0.013 * P=0.015 *	P=0.748N P=0.749N P=0.754N P=0.741N P=0.748N P=0.753N (e)	P=0.748 P=0.757N P=0.758N P=0.755N P=0.748 P=0.742N (e)	P=0.073 P=0.075 P=0.075 P=0.077 P=0.089 P=0.074 (e)
			Males			F	'emales	
Dose	0 MG/L	500 MG/L	1000MG/L	2000MG/L	0 MG/L	500 MG/L	1000MG/L	2000MG/L
Ovary Luteoma				·				
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE					3/45 (7%) 3/39.78 7.5% 2/32 (6%) 674	0/45 (0%) 0/41.72 0.0% 0/34 (0%)	1/47 (2%) 1/40.25 2.5% 1/30 (3%) 729 (T)	0/50 (0%) 0/43.40 0.0% 0/35 (0%)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED					P=0.084N P=0.079N P=0.078N P=0.082N P=0.078N P=0.075N P=0.016N*	P=0.109N P=0.110N P=0.114N P=0.105N P=0.111N P=0.121N (e)	P=0.326N P=0.300N P=0.302N P=0.298N P=0.295N P=0.292N (e)	P=0.110N P=0.103N P=0.103N P=0.101N P=0.104N P=0.103N (e)

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Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 03/26/03

	=======================================		Sacrifice at	105 weeks				==========
Page			Males	2000MG/L	0 MG/L	F	Temales	2000 M G/L
Dose	0 MG/L	500 MG/L	1000MG/L	ZUUUMG/L	O MG/L	500 MG/L	TOOOMG/ L	2000MG/L
Pituitary Gland: Pars Adenoma						==========		
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/47 (0%) 0/42.10 0.0% 0/37 (0%)	1/47 (2%) 1/44.28 2.3% 1/38 (3%) 729 (T)	0/45 (0%) 0/42.54 0.0% 0/38 (0%)	0/49 (0%) 0/42.80 0.0% 0/32 (0%)	3/46 (7%) 3/41.52 7.2% 3/35 (9%) 729 (T)	2/45 (4%) 2/41.26 4.9% 2/32 (6%) 729 (T)	4/48 (8%) 4/40.71 9.8% 4/30 (13%) 729 (T)	4/50 (8%) 4/43.56 9.2% 3/35 (9%) 688
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.591N P=0.553N P=0.556N P=0.550N (e) P=0.561N P=0.387N	P=0.505 P=0.510 P=0.506 P=0.514 P=0.505 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.339 P=0.356 P=0.362 P=0.352 P=0.340 P=0.383 P=0.436	P=0.541N P=0.503N P=0.506N P=0.497N P=0.541N P=0.511N (e)	P=0.415 P=0.489 P=0.494 P=0.484 P=0.415 P=0.524 (e)	P=0.500 P=0.526 P=0.530 P=0.526 P=0.520 P=0.547 (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Skeletal Muscle Rhabdomyosarcoma							,	
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	1/50 (2%) 1/44.40 2.3% 0/33 (0%) 535	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	1/50 (2%) 1/46.10 2.2% 0/35 (0%) 461	1/50 (2%) 1/42.33 2.4% 1/31 (3%) 729 (T)	2/50 (4%) 2/43.40 4.6% 2/35 (6%) 729 (T)
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS	P=0.197 P=0.195 P=0.197 P=0.192 P=0.246 P=0.198	(e) (e) (e) (e) (e)	(e) (e) (e) (e) (e)	P=0.500 P=0.499 P=0.500 P=0.498 P=0.513 P=0.500	P=0.150 P=0.149 P=0.150 P=0.149 P=0.156 P=0.153	P=0.508 P=0.511 P=0.507 P=0.516 P=0.312 P=0.500	P=0.470 P=0.494 P=0.494 P=0.493 P=0.470 P=0.500 (e)	P=0.232 P=0.236 P=0.235 P=0.237 P=0.232 P=0.247

O3 EXPERIMENT: 96010 TEST: 04 Page 17
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

=====================================	=======================================	Terminal	Sacrifice at	105 weeks	==========	=========		
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	emales 1000MG/L	2000MG/L
Skin Fibroma, Fibrosa or Fibrous Histic	rcoma, Sarcoma,			=======================================	:=====================================	=======================================		=======================================
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	1/50 (2%) 1/46.48 2.2% 1/41 (2%) 729 (T)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	1/50 (2%) 1/46.01 2.2% 0/35 (0%) 513	0/50 (0%) 0/42.33 0.0% 0/31 (0%)	3/50 (6%) 3/43.50 6.9% 2/35 (6%) 705
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.681 P=0.677 P=0.684 P=0.666 (e) P=0.694 P=0.389	(e) (e) (e) (e) (e) (e)	P=0.515 P=0.508 P=0.506 P=0.511 P=0.515 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.043 * P=0.041 * P=0.042 * P=0.041 * P=0.045 * P=0.044 * P=0.020 *	P=0.500 P=0.511 P=0.507 P=0.515 P=0.371 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.118 P=0.117 P=0.117 P=0.119 P=0.120 P=0.121 (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	emales 1000MG/L	2000MG/L
Skin Fibrosarcoma		######################################	=======================================	: ====	=======================================	=======================================	=======================================	:=====================================
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	1/50 (2%) 1/46.01 2.2% 0/35 (0%) 513	0/50 (0%) 0/42.33 0.0% 0/31 (0%)	2/50 (4%) 2/43.50 4.6% 1/35 (3%) 705
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.135 P=0.137 P=0.137 P=0.138 P=0.144 P=0.140 P=0.074	P=0.500 P=0.511 P=0.507 P=0.515 P=0.371 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.234 P=0.236 P=0.236 P=0.238 P=0.237 P=0.247 (e)

03 EXPERIMENT: 96010 TEST: 04 Page 18
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 03/26/03

	:========		Sacrifice at		: == ==================================	========	.========	.========
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Temales 1000MG/L	2000MG/L
Skin Fibrosarcoma, Sar	coma, Myxosarc	oma, or Fibro	ous Histiocyto) ma	========	=======================================		: === =====
TUMOR RATES	#	#	#	#	#	#	#	#
DVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	1/50 (2%) 1/46.48 2.2% 1/41 (2%) 729 (T)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	1/50 (2%) 1/46.01 2.2% 0/35 (0%) 513	0/50 (0%) 0/42.33 0.0% 0/31 (0%)	3/50 (6%) 3/43.50 6.9% 2/35 (6%) 705
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS DRDER RESTRICTED	P=0.681 P=0.677 P=0.684 P=0.666 (e) P=0.694 P=0.389	(e) (e) (e) (e) (e) (e)	P=0.515 P=0.508 P=0.506 P=0.511 P=0.515 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.043 * P=0.041 * P=0.042 * P=0.045 * P=0.044 * P=0.044 * P=0.020 *	P=0.500 P=0.511 P=0.507 P=0.515 P=0.371 P=0.500 (e)	(e) (e) (e) (e) (e) (e)	P=0.118 P=0.118 P=0.117 P=0.119 P=0.120 P=0.121 (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	emales 1000MG/L	2000 MG /L
Skin Schwannoma Malign TUMOR RATES OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	# 0/50 (0%) 0/44.60 0.0% 0/38 (0%)	# 0/50 (0%) 0/47.28 0.0% 0/41 (0%)	# 0/50 (0%) 0/46.48 0.0% 0/41 (0%)	# 0/50 (0%) 0/43.80 0.0% 0/33 (0%)	# 3/50 (6%) 3/44.09 6.8% 2/36 (6%) 591	# 1/50 (2%) 1/45.90 2.2% 0/35 (0%) 561	# 0/50 (0%) 0/42.33 0.0% 0/31 (0%)	# 1/50 (2%) 1/43.57 2.3% 0/35 (0%) 685
STATISTICAL TESTS LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e)	(e) (e) (e) (e) (e)	(e) (e) (e) (e) (e)	P=0.211N P=0.207N P=0.206N P=0.210N P=0.192N P=0.200N	P=0.317N P=0.291N P=0.296N P=0.285N P=0.337N P=0.309N	P=0.144N P=0.126N P=0.125N P=0.127N P=0.121N P=0.121N	P=0.310N P=0.309N P=0.309N P=0.308N P=0.305N P=0.309N

Date: 03/26/03 EXPERIMENT: 96010 TEST: 04
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM

			Sacrifice at	105 weeks	=========	==========	.========	=========
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Spleen Hemangiosarcoma		=========	- 			========		=======
TUMOR RATES					·			
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0/48 (0%) 0/43.91 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	1/50 (2%) 1/46.72 2.1% 0/41 (0%) 667	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	2/49 (4%) 2/44.00 4.6% 1/36 (3%) 606	1/48 (2%) 1/44.82 2.2% 0/35 (0%) 674	1/49 (2%) 1/42.00 2.4% 1/31 (3%) 729 (T)	0/50 (0%) 0/43.40 0.0% 0/35 (0%)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.690 P=0.675 P=0.684 P=0.662 P=0.721 P=0.699 P=0.392	(e) (e) (e) (e) (e) (e)	P=0.529 P=0.512 P=0.511 P=0.515 P=0.492 P=0.510 (e)	(e) (e) (e) (e) (e) (e) (e)	P=0.159N P=0.159N P=0.157N P=0.161N P=0.147N P=0.149N P=0.120N	P=0.484N P=0.494N P=0.500N P=0.485N P=0.535N P=0.508N (e)	P=0.535N P=0.516N P=0.515N P=0.518N P=0.504N P=0.500N (e)	P=0.240N P=0.240N P=0.239N P=0.240N P=0.221N P=0.242N (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Stomach, Forestomach Squamous Cell Car TUMOR RATES	cinoma or Papi #	lloma Squamou	1s #	#	 #	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	2/50 (4%) 2/46.48 4.3% 2/41 (5%) 729 (T)	2/50 (4%) 2/44.19 4.5% 1/33 (3%) 618	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	1/50 (2%) 1/45.35 2.2% 1/35 (3%) 729 (T)	3/50 (6%) 3/42.84 7.0% 2/31 (7%) 574	1/50 (2%) 1/43.40 2.3% 1/35 (3%) 729 (T)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.067 P=0.080 P=0.082 P=0.076 P=0.085 P=0.086 P=0.114	(e) (e) (e) (e) (e) (e) (e)	P=0.255 P=0.246 P=0.243 P=0.250 P=0.255 P=0.247 (e)	P=0.222 P=0.235 P=0.236 P=0.233 P=0.240 P=0.247 (e)	P=0.341 P=0.343 P=0.344 P=0.344 P=0.347 P=0.351 P=0.150	P=0.494 P=0.508 P=0.505 P=0.511 P=0.494 P=0.500 (e)	P=0.102 P=0.115 P=0.114 P=0.116 P=0.120 P=0.121 (e)	P=0.494 P=0.499 P=0.498 P=0.500 P=0.494 P=0.500 (e)

Date: 03/26/03 EXPERIMENT: 96010 TEST: 04 Page 20
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks

			Sacrifice at					
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Stomach, Forestomach Squamous Cell Pap								
TUMOR RATES	#	#	#	#		#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	2/50 (4%) 2/46.48 4.3% 2/41 (5%) 729 (T)	2/50 (4%) 2/44.19 4.5% 1/33 (3%) 618	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	0/50 (0%) 0/45.35 0.0% 0/35 (0%)	2/50 (4%) 2/42.84 4.7% 1/31 (3%) 574	1/50 (2%) 1/43.40 2.3% 1/35 (3%) 729 (T)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.067 P=0.080 P=0.082 P=0.076 P=0.085 P=0.086 P=0.114	(e) (e) (e) (e) (e) (e)	P=0.255 P=0.246 P=0.243 P=0.250 P=0.255 P=0.247 (e)	P=0.222 P=0.235 P=0.236 P=0.233 P=0.240 P=0.247 (e)	P=0.241 P=0.239 P=0.240 P=0.239 P=0.247 P=0.246 P=0.164	(e) (e) (e) (e) (e)	P=0.216 P=0.233 P=0.232 P=0.234 P=0.244 P=0.247 (e)	P=0.494 P=0.499 P=0.498 P=0.500 P=0.494 P=0.500 (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 500 MG/L	emales 1000MG/L	2000 M G/L
Stomach, Glandular Adenoma TUMOR RATES	#						#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	2/50 (4%) 2/47.28 4.2% 2/41 (5%) 729 (T)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	0/50 (0%) 0/45.35 0.0% 0/35 (0%)	0/50 (0%) 0/42.33 0.0% 0/31 (0%)	0/50 (0%) 0/43.40 0.0% 0/35 (0%)
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.434N P=0.396N P=0.399N P=0.394N (e) P=0.405N P=0.262N	P=0.255 P=0.250 P=0.245 P=0.257 P=0.255 P=0.247 (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)

03 EXPERIMENT: 96010 TEST: 04 Page 21
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 03/26/03

====================================			Sacrifice at					
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Testes Adenoma								
TUMOR RATES								
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	2/50 (4%) 2/43.80 4.6% 2/33 (6%) 729 (T)				
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.033 * P=0.043 * P=0.044 * P=0.042 * (e) P=0.046 * P=0.028 *	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	P=0.208 P=0.233 P=0.235 P=0.230 P=0.208 P=0.247 (e)				
	=========	========				========		=======================================
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	Females 1000MG/L	2000MG/L
Uterus Polyp Stromal TUMOR RATES	#						 #	 #
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS					1/50 (2%) 1/43.63 2.3% 1/36 (3%) 729 (T)	0/50 (0%) 0/45.35 0.0% 0/35 (0%)	0/50 (0%) 0/42.33 0.0% 0/31 (0%)	3/50 (6%) 3/43.40 6.9% 3/35 (9%) 729 (T)
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED			=======================================		P=0.085 P=0.081 P=0.082 P=0.080 P=0.085 P=0.086 P=0.037 *	P=0.506N P=0.492N P=0.495N P=0.489N (e) P=0.500N (e)	P=0.530N P=0.506N P=0.506N P=0.507N (e) P=0.500N (e)	P=0.295 P=0.303 P=0.302 P=0.305 P=0.295 P=0.309 (e)

Date: 03/26/03 EXPERIMENT: 96010 TEST: 04

ORDER RESTRICTED

(e)

(e)

(e)

P=0.211N

(e)

(e)

P=0.457

Page 22 Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Males Females 0 MG/L 500 MG/L 2000MG/L Dose 1000MG/L 0 MG/L 500 MG/L 1000MG/L 2000MG/L All Organs Hemangioma TUMOR RATES ____ OVERALL (a) 0/50 (0%) 0/50 (0%) 1/50 (2%)
POLY-3 RATE (b) 0/44.60 0/47.28 1/46.48
POLY-3 PERCENT (g) 0.0% 0.0% 2.2%
TERMINAL (d) 0/38 /0% 0.0% 0/50 (0%) 2/50 (4%) 1/50 (2%) 1/50 (2%) 1/50 (2%) 0/43.80 2/43.63 1/45.35 1/42.33 1/43.79 0.0% 4.6% 2.2% 2.4% 2.3% 0/38 (0%) 0/41 (0%) 1/41 (2%) 0/33 (0%) 2/36 (6%) TERMINAL (d) 1/35 (3%) 1/31 (3%) 0/35 (0%) FIRST INCIDENCE ___ ___ 729 (T) ___ 729 (T) 729 (T) 729 (T) 618 STATISTICAL TESTS -----LIFE TABLE P=0.681 (e) P=0.515 (e) P=0.418N P=0.510N P=0.552N P=0.501NP=0.486N P=0.511N P=0.511N P=0.512N (e) POLY 3 P=0.677 P=0.508P=0.416N P=0.499NP=0.508 P=0.506 P=0.511 (e) P=0.684 P=0.491N P=0.501N POLY 1.5 (e) P=0.416N (e) POLY 6 P=0.666 (e) P=0.511 (e) P=0.416N P=0.480N P=0.495N LOGISTIC REGRESSION (e) (e) P=0.515 (e) P=0.415N P=0.510N P=0.552N P=0.501N COCH-ARM / FISHERS P=0.694 (e) P=0.500(e) P=0.409N P=0.500NP=0.500NP=0.500N ORDER RESTRICTED P=0.389(e) (e) P=0.412N (e) (e) (e) (e) Males Females Dose 0 MG/L 500 MG/L 1000MG/L 2000MG/L 0 MG/L 500 MG/L 1000MG/L 2000MG/L All Organs Hemangiosarcoma TUMOR RATES _____ 1/50 (2%) 2/50 (4%) 2/50 (4%) 1/44.60 2/47.28 2/46.72 2.2% 4.2% 4.3% POLY-3 RATE (b) 3/50 (6%) 4/50 (8%) 2/50 (4%) 2/50 (4%) 1/50 (2%) 4/45.56 2/43.80 3/44.05 2/42.58 1/43.40 POLY-3 PERCENT (g) 6.8% 4.6% 8.8% 4.7% 2.3% TERMINAL (d) 1/38 (3%) 2/41 (5%) 1/41 (2%) 2/33 (6%) 2/36 (6%) 3/35 (9%) 1/31 (3%) 1/35 (3%) 729 (工) 729 (工) 674 FIRST INCIDENCE 667 729 (T) 606 662 729 (T) ------------STATISTICAL TESTS ______ LIFE TABLE P=0.363 P=0.527 P=0.534 P=0.451
POLY 3 P=0.409 P=0.520 P=0.516 P=0.494
POLY 1.5 P=0.415 P=0.512 P=0.511 P=0.497
POLY 6 P=0.399 P=0.530 P=0.502 P=0.173N P=0.502P = 0.540NP = 0.312NP=0.518 P=0.170N P=0.515NP=0.310NP=0.512 P=0.515N P=0.169N P=0.310NPOLY 6 P=0.399 P=0.530 P=0.522 P=0.489 LOGISTIC REGRESSION P=0.399 P=0.527 P=0.508 P=0.451 P=0.527P=0.171N P=0.517N P=0.310N P=0.512 P=0.167N P=0.508N P=0.307N COCH-ARM / FISHERS P=0.423 P=0.500 P=0.500P=0.500P=0.162N P=0.500 P=0.500NP=0.309N

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Statistical Analysis of Primary Tumors in Mice(B6C3F1)
Terminal Sacrifice at 105 weeks Date: 03/26/03

l=======		Terminal	Sacrifice at	105 weeks				
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 500 MG/L	emales 1000MG/L	2000MG/L
All Organs Hemangiosarcoma				:====±±±±±±±±±	=======================================	=========		
TUMOR RATES	#	#	 #	#	#	+	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	1/50 (2%) 1/44.60 2.2% 1/38 (3%) 729 (T)	2/50 (4%) 2/47.28 4.2% 2/41 (5%) 729 (T)	3/50 (6%) 3/46.72 6.4% 2/41 (5%) 667	2/50 (4%) 2/43.80 4.6% 2/33 (6%) 729 (T)	5/50 (10%) 5/44.05 11.4% 4/36 (11%) 606	5/50 (10%) 5/45.56 11.0% 4/35 (11%) 674	3/50 (6%) 3/42.58 7.1% 2/31 (7%) 662	2/50 (4%) 2/43.79 4.6% 1/35 (3%) 618
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.339 P=0.386 P=0.394 P=0.374 P=0.376 P=0.404 P=0.365	P=0.527 P=0.520 P=0.512 P=0.530 P=0.527 P=0.500 (e)	P=0.340 P=0.322 P=0.316 P=0.329 P=0.318 P=0.309 (e)	P=0.451 P=0.494 P=0.497 P=0.489 P=0.451 P=0.500 (e)	P=0.141N P=0.134N P=0.134N P=0.134N P=0.134N P=0.128N P=0.201N	P=0.626 P=0.609N P=0.616N P=0.599N P=0.607N P=0.630N (e)	P=0.420N P=0.375N P=0.374N P=0.377N P=0.372N P=0.357N (e)	P=0.224N P=0.218N P=0.219N P=0.215N P=0.218N P=0.218N (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F 500 MG/L	emales 1000MG/L	2000MG/L
All Organs Histiocytic Sarco	======================================		======================================		<u>'</u>		=======================================	
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE STATISTICAL TESTS	# 1/50 (2%) 1/44.86 2.2% 0/38 (0%) 661	# 0/50 (0%) 0/47.28 0.0% 0/41 (0%)	# 2/50 (4%) 2/46.48 4.3% 2/41 (5%) 729 (T)	# 3/50 (6%) 3/44.39 6.8% 1/33 (3%) 595	# 0/50 (0%) 0/43.63 0.0% 0/36 (0%)	# 1/50 (2%) 1/45.35 2.2% 1/35 (3%) 729 (T)	# 4/50 (8%) 4/43.11 9.3% 1/31 (3%) 503	# 2/50 (4%) 2/44.00 4.6% 1/35 (3%) 535
POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.083 P=0.097 P=0.099 P=0.093 P=0.109 P=0.104 P=0.104	P=0.477N P=0.489N P=0.493N P=0.485N P=0.531N P=0.500N (e)	P=0.528 P=0.512 P=0.509 P=0.516 P=0.506 P=0.500 (e)	P=0.287 P=0.301 P=0.303 P=0.298 P=0.309 P=0.309 (e)	P=0.159 P=0.163 P=0.161 P=0.165 P=0.169 P=0.165 P=0.073	P=0.494 P=0.508 P=0.505 P=0.511 P=0.494 P=0.500 (e)	P=0.059 P=0.058 P=0.058 P=0.059 P=0.064 P=0.059 (e)	P=0.234 P=0.239 P=0.237 P=0.242 P=0.247 P=0.247 (e)

03 EXPERIMENT: 96010 TEST: 04 Page 24
Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM Terminal Sacrifice at 105 weeks Date: 03/26/03

=======================================	.=========			105 weeks =========	==========	==========		========
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	500 MG/L	emales 1000MG/L	2000MG/L
All Organs Malignant Lymphom NOS, or Undiffere	na: Histiocytic	., Lymphocytic						
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	3/50 (6%) 3/45.53 6.6% 2/38 (5%) 301	1/50 (2%) 1/47.28 2.1% 1/41 (2%) 729 (T)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	3/50 (6%) 3/44.19 6.8% 2/33 (6%) 616	23/50 (46%) 23/45.56 50.5% 19/36 (53%) 440	19/50 (38%) 19/46.35 41.0% 16/35 (46%) 492	28/50 (56%) 28/43.89 63.8% 23/31 (74%) 503	27/50 (54% 27/45.42 59.5% 22/35 (63% 447
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.480 P=0.514 P=0.519 P=0.508 P=0.555 P=0.526 P=0.268	P=0.287N P=0.292N P=0.298N P=0.288N P=0.406N P=0.309N (e)	P=0.114N P=0.115N P=0.117N P=0.113N P=0.196N P=0.121N (e)	P=0.616 P=0.649 P=0.653 P=0.644 P=0.653N P=0.661N (e)	P=0.094 P=0.089 P=0.093 P=0.089 P=0.095 P=0.121 P=0.089	P=0.296N P=0.238N P=0.249N P=0.224N P=0.232N P=0.272N (e)	P=0.073 P=0.138 P=0.149 P=0.126 P=0.161 P=0.212 (e)	P=0.250 P=0.254 P=0.253 P=0.264 P=0.259 P=0.274 (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 500 MG/L	emales 1000MG/L	2000 M G/L
 ====================================	=========				=======================================		:==== ====	========
All Organs Osteosarcoma TUMOR RATES	 #	 #		#		#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	1/50 (2%) 1/45.39 2.2% 0/35 (0%) 719	1/50 (2%) 1/42.71 2.3% 0/31 (0%) 622	2/50 (4%) 2/44.56 4.5% 0/35 (0%) 447
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e)	(e) (e) (e) (e) (e)	(e) (e) (e) (e) (e)	P=0.154 P=0.156 P=0.154 P=0.159 P=0.167 P=0.153	P=0.505 P=0.508 P=0.505 P=0.512 P=0.511 P=0.500	P=0.495 P=0.496 P=0.495 P=0.496 P=0.520 P=0.500	P=0.247 P=0.242 P=0.239 P=0.246 P=0.273 P=0.247

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Statistical Analysis of Primary Tumors in Mice(B6C3F1) - WATER DISINFECTION BYPRODUCTS (SODIUM
Terminal Sacrifice at 105 weeks Date: 03/26/03

======================================	=== ==== =======		Sacrifice at 1		==========			·
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	F6 500 MG/L	emales 1000MG/L	2000MG/L
All Organs Osteosarcoma or (************				=======================================		************
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	0/50 (0%) 0/44.60 0.0% 0/38 (0%)	0/50 (0%) 0/47.28 0.0% 0/41 (0%)	0/50 (0%) 0/46.48 0.0% 0/41 (0%)	0/50 (0%) 0/43.80 0.0% 0/33 (0%)	0/50 (0%) 0/43.63 0.0% 0/36 (0%)	1/50 (2%) 1/45.39 2.2% 0/35 (0%) 719	1/50 (2%) 1/42.71 2.3% 0/31 (0%) 622	2/50 (4%) 2/44.56 4.5% 0/35 (0%) 447
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e) (e)	(e) (e) (e) (e) (e) (e) (e)	P=0.154 P=0.156 P=0.154 P=0.159 P=0.167 P=0.153 P=0.122	P=0.505 P=0.508 P=0.505 P=0.512 P=0.511 P=0.500 (e)	P=0.495 P=0.496 P=0.495 P=0.496 P=0.520 P=0.500 (e)	P=0.247 P=0.242 P=0.239 P=0.246 P=0.273 P=0.247 (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 500 MG/L	emales 1000MG/L	2000MG/L
All Organs Benign Tumors					<u></u>	:========		***************************************
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	34/50 (68%) 34/48.07 70.7% 27/38 (71%) 484	38/50 (76%) 38/47.86 79.4% 35/41 (85%) 604	37/50 (74%) 37/48.25 76.7% 32/41 (78%) 543	34/50 (68%) 34/46.91 72.5% 24/33 (73%) 535	38/50 (76%) 38/46.54 81.6% 31/36 (86%) 524	27/50 (54%) 27/46.09 58.6% 22/35 (63%) 673	33/50 (66%) 33/44.32 74.5% 24/31 (77%) 574	31/50 (62%) 31/45.66 67.9% 25/35 (71%) 475
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.243 P=0.528N P=0.499N P=0.538 P=0.509N P=0.447N P=0.419	P=0.472 P=0.223 P=0.239 P=0.207 P=0.343 P=0.252	P=0.541 P=0.330 P=0.339 P=0.317 P=0.382 P=0.330 (e)	P=0.314 P=0.515 P=0.541 P=0.492 P=0.569 P=0.585N (e)	P=0.307N P=0.234N P=0.238N P=0.231N P=0.253N P=0.219N P=0.075N	P=0.028N* P=0.010N* P=0.011N* P=0.009N** P=0.006N** P=0.018N* (e)	P=0.527N P=0.273N P=0.263N P=0.293N P=0.234N P=0.189N (e)	P=0.144N P=0.090N P=0.094N P=0.085N P=0.094N P=0.097N (e)

03 EXPERIMENT: 96010 TEST: 04
Statistical Analysis of Primary Tumors in Mice(B6C3F1)
Terminal Sacrifice at 105 weeks Page 26
- WATER DISINFECTION BYPRODUCTS (SODIUM Date: 03/26/03

=======================================		Terminal S	Sacrifice at 1	.05 weeks :========	=========	.========	.========	=========
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 500 MG/L	emales 1000MG/L	2000 M G/L
======================================		=======================================	==========					=========
All Organs Malignant Tumors								
TUMOR RATES	#	#	#	#	 #	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	29/50 (58%) 29/49.08 59.1% 19/38 (50%) 301	22/50 (44%) 22/49.00 44.9% 17/41 (42%) 431	30/50 (60%) 30/50.00 60.0% 21/41 (51%) 543	27/50 (54%) 27/47.63 56.7% 14/33 (42%) 535	33/50 (66%) 33/47.24 69.9% 24/36 (67%) 440	38/50 (76%) 38/49.43 76.9% 24/35 (69%) 461	41/50 (82%) 41/46.20 88.8% 27/31 (87%) 503	41/50 (82%) 41/48.78 84.1% 29/35 (83%) 142
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS ORDER RESTRICTED	P=0.290 P=0.435 P=0.451 P=0.428 P=0.525N P=0.500 P=0.419	P=0.088N P=0.113N P=0.114N P=0.113N P=0.175N P=0.115N (e)	P=0.496N P=0.544 P=0.526 P=0.568 P=0.400 P=0.500 (e)	P=0.526 P=0.487N P=0.470N P=0.498N P=0.405N P=0.420N (e)	P=0.081 P=0.041 * P=0.040 * P=0.043 * P=0.033 * P=0.043 * P=0.025 *	P=0.253 P=0.289 P=0.252 P=0.334 P=0.197 P=0.189 (e)	P=0.031 * P=0.018 * P=0.019 * P=0.018 * P=0.028 * P=0.055 (e)	P=0.097 P=0.073 P=0.066 P=0.081 P=0.053 P=0.055 (e)
Dose	0 MG/L	500 MG/L	Males 1000MG/L	2000MG/L	0 MG/L	Fe 500 MG/L	emales 1000MG/L	2000MG/L
All Organs Malignant and Ben	ign Tumors							*************
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a) POLY-3 RATE (b) POLY-3 PERCENT (g) TERMINAL (d) FIRST INCIDENCE	45/50 (90%) 45/49.62 90.7% 34/38 (90%) 301	45/50 (90%) 45/49.46 91.0% 38/41 (93%) 431	47/50 (94%) 47/50.00 94.0% 38/41 (93%) 543	45/50 (90%) 45/48.32 93.1% 30/33 (91%) 535	47/50 (94%) 47/49.05 95.8% 34/36 (94%) 440	45/50 (90%) 45/49.43 91.0% 31/35 (89%) 461	46/50 (92%) 46/46.71 98.5% 31/31 (100%) 503	47/50 (94%) 47/49.24 95.4% 33/35 (94%) 142
STATISTICAL TESTS								
LIFE TABLE POLY 3 POLY 1.5 POLY 6 LOGISTIC REGRESSION COCH-ARM / FISHERS	P=0.123 P=0.355 P=0.392 P=0.356 P=0.504 P=0.533	P=0.312N P=0.618 P=0.622 P=0.615 P=0.630N P=0.630N	P=0.478N P=0.402 P=0.381 P=0.434 P=0.332 P=0.357	P=0.252 P=0.470 P=0.508 P=0.467 P=0.618 P=0.630N	P=0.384 P=0.439 P=0.459 P=0.414 P=0.369 P=0.482	P=0.453N P=0.288N P=0.286N P=0.312N P=0.300N P=0.357N	P=0.276 P=0.427 P=0.512 P=0.315 P=0.660 P=0.500N	P=0.514 P=0.659N P=0.642N P=0.684N P=0.632 P=0.661N

⁽a) Number of tumor-bearing animals / number of animals examined at site.(b) Number of tumor-bearing animals / Poly-3 number

⁽d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.

Logistic regression is an alternative

method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates

For all tests a negative trend is indicated by N

- (e) Value of Statistic cannot be computed.
- (g) Poly-3 adjusted lifetime tumor incidence.
- (I) Interim sacrifice
- (T) Terminal sacrifice
- # Tumor rates based on number of animals necropsied.
- * To the right of any statistical result, indicates significance at (P<=0.05).
- ** To the right of any statistical result, indicates significance at (P<=0.01).